



# **Environmental Health Sciences**

**School of Public Health**

**MPH degree**

# **2018-2019 MPH Student Guidebook**

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**SCHOOL OF  
PUBLIC HEALTH**

UNIVERSITY OF MINNESOTA

## Welcome to the University of Minnesota School of Public Health!

All students are responsible for knowing the rules and policies that govern their academic program. To this end, we are providing you with this guidebook which covers your specific academic program requirements. Please refer to it often.

Many Graduate School processes have changed in the last year or two. Please stay in touch with your Program Coordinator as some paper processes have converted to electronic processes.

In addition, you are responsible for knowing University of Minnesota and School of Public Health policies and procedures that pertain to all students. Links to these policies and procedures can be found by clicking on the "Current Students" link at <http://www.sph.umn.edu/current/resources/>.

### EnHS Student Mailboxes - 1215-1 Mayo Building

Student mailboxes are located in the interior hallway of Room 1215 in 1215-1 Mayo. Check your mailbox regularly for communication from faculty and accounting (important letters you may need to sign and return ASAP).

### Division of Environmental Health Sciences

#### Administrative Contacts:

Division Head – Bruce Alexander, PhD	612-625-7934 (balex@umn.edu)
Director of Graduate Studies – Silvia Balbo, PhD	612 624-4240 (balbo006@umn.edu)
Major Chair (MPH) – Elizabeth Wattenberg PhD	612.626-0184 (watte004@umn.ed)
Graduate Program Coordinator – Khosi Nkosi. MEd, MA	612 625.0622 (enhsss@umn.edu or nkosi001@umn.edu)

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#### Our Mission

The primary mission of the Division of Environmental Health Sciences is to provide excellence in the education of environmental and occupational health professionals, in the conduct of research, and in the service to the people of the State of Minnesota and the world. These aims are achieved through:

**Education:** Masters' and doctoral education programs

**Research:** Research and scholarly activities

**Service:** Professional practice and service

**Outreach:** Continuing education, and outreach programs that include collaborative efforts with faculty in colleges throughout the university, and through collaboration with health care organizations, industry and government agencies.

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*The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.*

*This publication can be made available in alternative formats for people with disabilities. Direct requests to the*

*Student Services Center, School of Public Health, MMC 819 Mayo, 420 Delaware Street SE, Minneapolis, MN*

*55455; 612-626-3500 or 800-774-8636.*

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## Table of Contents

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<b>Section 1</b>	<b>Division of Environmental Health Sciences.....</b>	<b>4-6</b>
1.1	Division Resources, Faculty and Teaching Staff Directory; .....	4
1.2	Overview of the MPH Degree Program .....	6
1.3	Advising Roles and Expectations; Diversity of Student Body .....	7
1.4	EnHS Program Curriculum [Sample Registration: General and Env. Infectious Disease] .....	9
1.5	EnHS Division Course List .....	15
<b>Section 2</b>	<b>Fall 2018 MPH Degree Program.....</b>	<b>24</b>
2.1	Fall 2018 MPH Degree Requirements, Program Curriculum .....	24
2.2	Course Transfers, Course Substitution and Waivers, Petition processes .....	25
2.3	Applied Practice (AP) requirement Learning Agreement Online Module: PubH 7196 Registration .....	27
2.4	MPH Integrative Learning Experience (ILE) Requirements:.....	37
2.5	Progress Review/ Annule Review, Study Plan .....	38
2.6	MPH Integrative Learning Experience PubH 7194 Registration .....	38
2.7	Time frame, Graduation Checklist, Degree Clearance .....	39
2.8	Foundational CEPH Competencies .....	40
2.9	12 CEPH Knowledge Domains .....	41
<b>Section 3</b>	<b>Appendices .....</b>	<b>42-46</b>
	EnHS MPH Competencies.....	46

A: Self-Assessment Report for Annual Review.

B. Resources for MPH, Competency Statement; More Options for Plan B/C MPH degree

C: Career and Professional Development Services

D: Graduation Checklist for MPH

E. Curriculum Sheets for all concentrations, please our website:  
<http://www.sph.umn.edu/academics/divisions/enhs/degrees/>

- Environmental Occupational Epidemiology
- Industrial Hygiene
- Regulatory Toxicology and Risk Assessment,
- Global Environmental Health
- Occupational Health Nursing
- Occupational Environmental Medicine

# 1. Division of Environmental Health Services (EnHS)

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## 1.1 Division Resources

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### Websites

EnHS websites for:

- [EnHS Faculty](#)

### Academics:

- [MPH Program Curriculum](#)
- [Interdisciplinary Concentrations/Minor](#) ( Health Disparities, Public Health Policy)
- [Resources \(SPH and University wide\)](#)

### Websites relevant to MS and PhD only

- [MS Program Curriculum](#)
- [PhD Program Curriculum](#)
- MS and PhD [Grad School Forms, Policies and Procedures](#)

### Other important related websites for all:

- [All SPH Faculty Directory](#)
- [Career and Professional Development Services](#)
- [Resources](#)
- [SPH Course syllabi](#)
- [Questions about tuition and fees](#)
- [Immunization and immunization Holds](#)

Have news to share? Website questions or submissions should be sent to Joy Archibald at [archi009@umn.edu](mailto:archi009@umn.edu) OR post on facebook here:

Facebook search: [UMN SPH - Environmental Health Sciences](#) OR  
Click: [UMN SPH - Environmental Health Sciences Facebook Page](#)

### **EnHS Student Mailboxes – 1215-1 Mayo Building**

Student mailboxes are located in the interior hallway in 1215-1 Mayo. Students are expected to check mailboxes regularly for messages from faculty and staff. Faculty mailboxes are located on the left in room outside of 1150 Mayo.

## EnHS Faculty Directory

To learn more about our faculty research areas and expertise please visit: [EnHS Faculty website](#)

EnHS also has a vast network of adjunct faculty across the state, country and across the U of MN

<b>Name</b>	<b>Title</b>	<b>E-Mail</b>	<b>Phone</b>	<b>Office</b>
<u>Bruce Alexander, PhD</u> Env. and Occupational Epidemiology	Professor, Division Head, Director of UMASH	balex@umn.edu	625-7934	1260 Mayo
Kim Anderson, PhD Industrial Hygiene	Assistant Professor	and06109@umn.edu	624-2316	1230 Mayo
Susan Arnold, PhD, CIH, FAIHA Industrial Hygiene and Exposure Science and Sustainability Institute	Assistant Professor	Arnol353@umn.edu	624-6222	1239 Mayo
<u>Silvia Balbo, PhD</u> Environmental Toxicology	Assistant Professor	balbo006@umn.edu	624-4240	2-145 CCRB
Jesse Berman, PhD Exposure Science	Assistant Professor	berma186@umn.edu	626-0923	1228 Mayo
<u>Timothy Church, PhD, MS</u> Env. and Occupational Epidemiology	Professor	churc001@umn.edu	626-1494	1162 Mayo
<u>Susan Gerberich, PhD, MS</u> Env. and Occupational Injury Epidemiology and Prevention	Professor, Director of MCOHS & ERC	gerbe001@umn.edu	625-5934	1156 Mayo
<u>Craig Hedberg, PhD, MS</u> Env. & Infectious Diseases/Food Safety	Professor Center for Food Safety	hedbe005@umn.edu	626-4757	1214 Mayo
<u>Huyn Kim, ScD</u> Occupational Injury Epidemiology, Injury Prevention	Assistant Professor	kimx4804@umn.edu	626-0435	1116 Mayo
Petrona Lee, PhD, MS Food Safety	Lecturer	leex3143@umn.edu	625-2899	1158 Mayo
<u>George Maldonado, PhD, MS</u> Env. and Occupational Epidemiology	Associate Professor	gmphd@umn.edu	626-2104	1114 Mayo
<u>Jeff Mandel, MD, MPH</u> Occupational Medicine	Associate Professor	mand0125@umn.edu	626-9308	1240 Mayo
<u>Patricia McGovern, PhD, MPH, RN</u> Env. Health Policy/ Occupational & Env. Health Nursing/ Occupational Health Services Research and Policy	Bond Professor of Environmental and Occupational Health Policy	pmcg@umn.edu	625-7429	1112 Mayo
Claudia Munoz-Zanzi, DVM, MPVM, PhD Env. Infectious Diseases	Associate professor	munozzan@umn.edu	625-6953	1245 Mayo
Jonathan Oliver, PhD Environmental Infections Diseases	Assistant Professor	joliver@umn.edu		1234 Mayo
<u>Lisa Peterson, PhD</u> Environmental Toxicology	Professor Program Leader Carcinogenesis and Chemoprevention	peter431@umn.edu	626-0164	760D CCRB
Ramirez, Marizen PhD, MPH Occ. Injury Epi and Prevention	Associate Professor	mramirez@umn.edu	624-3143	1210 Mayo

<u>Pete Raynor, PhD, MS</u> Industrial Hygiene	Professor	praynor@umn.edu	625-7135	1242 Mayo
<u>Matt Simcik, PhD, MS</u> Environmental Chemistry	Associate Professor MPH Major Chair	simci001@umn.edu	626-6269	1108 Mayo
<u>Irina Stepanov, PhD</u> Environmental Toxicology	Associate Professor	stepa011@umn.edu	624-4998	760 CCRB
<u>William Toscano, PhD</u> Environmental Toxicology	Professor	tosca001@umn.edu	624-2967	1260-6 Mayo
<u>Elizabeth Wattenberg, PhD</u> Environmental Toxicology	Associate Professor, DGS for MS/PHD	watte004@umn.edu	626-0184	1110 Mayo

## Staff

Name	Title	E-mail	Phone	Office
Shelly Ring	Finance Professional	bacig007@umn.edu	626-0900	1260 Mayo
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Khosi Nkosi	Graduate Program Coordinator	enhsss@umn.edu/ nkosi001@umn.edu	625-0622	1215-2 Mayo
Frank Strahan	Info Tech Specialist	fxs@cccs.umn.edu	624-3710	1151 Mayo
Joann Larson	Grants Coordinator	larsonjm@umn.edu	626-4512	1260-4 Mayo
	Student Assistant	jerom058@umn.edu	626-0900	1260 Mayo

## 1.2 Overview of Degree Programs and Concentrations

**Degree Options:** We offer MPH, MS, and PhD degrees and several areas of emphasis or concentrations.

See Degree options and curriculum listings at the following websites.

**http://www.sph.umn.edu/academics/divisions/enhs/degrees/**

**MPH:** <http://www.sph.umn.edu/academics/programs/mph/enhs/>

**MS:** <http://www.sph.umn.edu/academics/programs/ms/enhs/>

**PhD:** <http://www.sph.umn.edu/academics/programs/phd/enhs/>

**Students may focus in one of the following areas:**

<http://www.sph.umn.edu/academics/divisions/enhs/degrees/>

- General (MPH)
- Environmental Chemistry (MS, PhD)
- Environmental and Occupational Epidemiology (MPH, MS, PhD)
- Environmental Infectious Diseases (MPH, MS, PhD)
- Environmental Toxicology (PhD)
- Exposure Sciences (MS)
- Global Environmental Health (MPH)
- Industrial Hygiene (MPH, MS, PhD)
- Injury and Violence Prevention Epidemiology (MPH, MS, PhD)
- Occupational and Environmental Health Nursing (MPH, PhD)
- Occupational and Environmental Medicine (MPH)
- Occupational Health Services Research and Policy (PhD)

- Regulatory Toxicology and Risk Assessment (MPH, MS)

## Doctoral Training Grants housed in the Midwest Center for Occupational Health and Safety (MCOHS)

EnHS offers two doctoral training programs; each of which supports and enhances the Ph.D. training of students in multidisciplinary fields of study and research:  
Occupational Health Services Research and Policy (Read more: OHSRP)  
Occupational Injury Prevention Research Training (Read more: OIPRT)

MCOHS is an **Education and Research Center**, one of 18 nationwide, was designed in response to a mandate of the National Institute for Occupational Safety and Health (NIOSH) -- to provide an adequate supply of qualified personnel to carry out the purposes of the Occupational Health and Safety Act and reduce the national burden of work-related injury and illness. The MCOHS, recognized regionally, nationally and internationally for its impact, has a service area that includes Minnesota, Wisconsin, and North and South Dakota.

MCOHS provides graduate academic and research training programs, continuing education and outreach activities, including research-to-practice, and serves as a regional resource for industry, labor, federal, state, and local government agencies, agriculture, and other interested parties.

An innovative administrative structure supports enhanced efforts in interdisciplinary research, education, and outreach, and strengthens diversity recruitment for the next generation of professionals.

## Dual Degrees

The Division also offers the following joint degrees in collaboration with other university schools:

- JDP/MPH with the Law School
- MD/PhD with the Medical School

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## 1.3 Advising Roles and Advising Expectations; Diversity of the Student Body

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The School of Public Health provides advising that promotes collaboration among students, faculty and staff to enhance students' academic and professional development in the field of public health. The School's goal is to provide educational and experiential excellence that prepares students for successful careers improving the health of populations. We do this by providing you with wide network of resources for you to take advantage of. We are part of your network.

The School of Public Health is committed to creating and sustaining high quality advising in the following four areas:

1. **Administrative Advising:** advising on course planning and scheduling, policies, procedures and benchmarks of the degree program/major, SPH, and the University. Your program coordinator is your first point of contact for these questions.
2. **Academic Advising:** general guidance on topics related to program/major including, but not limited to, program focus (may include identifying appropriate course work options), **Applied Practice Experience and Integrative Learning Experience master's project** selection and or career planning. Students find their faculty advisors, coordinators and career services staff all helpful in answering parts of these questions.
3. **Applied Practice Experience Advising:** specific and targeted advising for **Applied Practice Experience** development, placement and completion. Your faculty advisor can assist you as you select the type of **Applied Practice Experience** that would best match your goals. Career Services staff can help you to learn how to network with other students and alums to explore possible **Applied Practice Experience** sites.
4. **Culminating Experience /Master's Projects/Plan B Advising:** specific and targeted direction on a master's project or a PhD dissertation including, but not limited to development, completion and in some cases publication. Your faculty advisor will assist you in developing a direction for your project or dissertation.

## GRADUATE ADVISING EXPECTATIONS FOR STUDENTS

All SPH students are expected to:

Regularly read and respond to University email (ideally once per day); email is the official mode of communication at the University of Minnesota.

- Review program objectives and educational documents *at least once per semester*, (i.e. Student Guidebook, etc.), or when directed by program coordinator or program director/DGS; students are responsible for knowing the requirements of the degree program.
- Actively contribute to a welcoming and supportive SPH and EnHS climate.
- **Initiate** meetings with advisor(s) at least once per semester; regularly communicate with faculty advisor(s) and/or program coordinator about program progress.
- Respond to inquiries from faculty or staff in a timely manner (ideally within 1 – 3 business days).
- Behave in a professional and courteous manner; fulfill educational and advising commitments, such as appointments, project deadlines, etc.

**Similar guidelines are posted by the University of Minnesota Office of Graduate Education for Academic and Professional Programs here: <http://www.gradvising.umn.edu/>**

## ACADEMIC ADVISING FOR FACULTY



Excerpt from: University of Minnesota Office of Graduate Education for Academic and Professional Programs here:

The work of the graduate faculty in preparing the next generation of scholars and professionals doesn't stop with classroom teaching. Advising, tutoring, supporting and supervising are all part of the faculty role as stewards of the profession and mentors to graduate students. Mentoring future professionals and professors, therefore, requires a commitment that goes well beyond the capacity of a single individual advisor. Best practices in graduate education indicate that graduate and professional students' multiple professional and personal development needs are most effectively met by a network of people.

These resources, developed by the Work Group on Advising & Mentoring, are provided to help you maximize your relationships with your advisees, deal constructively with conflicts that may arise, and address ways to communicate more effectively to minimize misunderstandings.

## Diversity of the Student Body

The School of Public Health embraces the University of Minnesota's position that promoting and supporting diversity among the student body is central to the academic mission of the University. We define diversity to encompass many characteristics including but not limited to: economic disadvantage, special talents, evidence of leadership qualities, race or ethnicity, sexual orientation, a strong work record, and disability. A diverse student body enriches graduate education by providing a multiplicity of views and perspectives that enhance research, teaching, and the development of new knowledge. A diverse mix of students promotes respect for, and opportunities to learn from, others with the broad range of backgrounds and experiences that constitute modern society. Higher education trains the next generation of leaders of academia and society in general, and such opportunities for leadership should be accessible to all members of society.

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### 1.4 Fall 2018 MPH Program Curriculum

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MPH students starting fall 2018 must follow this new curriculum as required by Council on Education for Public Health (CEPH) our accrediting body.

Students registering for 12-14 credits over 4 semesters take two years to complete their degree program. However, a minimum of 6 credits is all that is expected for financial aid full-time certification. MPH students must complete a minimum of 42 credits total.

#### **Students complete:**

- Course credits (~40 cr)
- Applied Practice Experience (minimum 1 cr)

- Integrative Learning Experience (minimum 1 cr)

Students must register for all core courses with A/F grading unless otherwise noted. A minimum acceptable grade is B-. Students who earn less than a **B-** in any of these courses are required to retake the course the immediate following semester to and earn a minimum B-. This will require a formal re-registration and more tuition and fee charges.

### Pre-approved Courses Meeting MPH and Division Core Requirements

General Public Health Core Courses required [14 credits], Environmental Health Core Courses required [6 credits]

Course	Title	Offered	Credits
PubH 6250	Foundations of Public Health (online only)	Fall/Spring	2
PubH 6102	Issues in Environmental and Occ Health (in person and online)	First semester (recommended)	2
PubH 6109	Environmental Health Science, Politics and Policy	Spring only	4
<i>One of the following courses in Epidemiology</i>			
PubH 6320 or PubH 6341	Fundamentals of Epidemiology	Any term	3
	Epidemiologic Methods I	Fall	3
<i>One of the following courses in Biostatistics</i>			
PubH 6414 or PubH 6450	Biostatistical Literacy 3 cr (in class and online) PLUS 1 credit programming course e.g. PubH 6420 or PubH 6325	Fall/Spring/Summer	4
	Biostatistics I or PubH 6451 Biostatistics II	Fall/Spring/Summer	4
<i>Additional required courses</i>			
PubH 6741	Ethics in Public Health: Professional Practice & Policy	Fall/Spring/Summer	1
PubH 6020	Fundamentals of Social and Behavioral Science	Fall/Spring/Summer	2
* PubH 7196	Applied Practice (AP) [S-N grade basis only]	summer term~	1-5
PubH 6751	Principles of Management in Health Services Organizations	Fall/Spring/Summer	2
PubH 7194	Integrative Learning Experience/Master's Project (ILE) [S-N grade basis only]	Fall/Spring/Summer	1-5

Advisees are expected to meet with their academic advisor at least once a semester

### Sample Registration for the General Env. Health Program (MPH)

Year 1: Fall Semester (12cr)		Cr
MPH Core Courses	PubH 6250, 6320 or 6341; 6450 or 6414; 6020, or 6741 ...	10-11
PubH 6102	Issues in Environmental and occupational Health	2
	<i>Total</i>	<i>12-13</i>
<b>Year 1: Spring Semester (12.0 cr)</b>		
PubH	MPH Core courses	x
PubH 6109	Environmental Health: Science, Politics and Policy	4

	Electives as needed	5
	<i>Total</i>	12-14
	<b>In March submit your Self-Assessment Report to your advisor and major coordinator</b>	
<b>Year 1: May/Summer Semester (3.0 cr)</b>		
<b>PubH 7196</b>	Applied Practice Experience in Environmental Health (AP)	1-5
		1-3
<b>Year 2: Fall Semester (9.0 cr)</b>		
<b>PubH 6414/6450</b>	Biostatistics	3
<b>PubH 6181</b>	Surveillance of Foodborne Diseases and Food Safety Hazards	2
<b>PubH 6741</b>	Ethics in Public Health Professional Practice and Policy	2
	Electives	2
	<i>Total</i>	9
<b>Year 2: Spring Semester (8.0 Cr)</b>		
<b>PubH 7194</b>	Integrative Learning Experience (ILE)	1-5
	Electives as needed	2
	<i>Total</i>	8
<b>Year 2: May/Summer Semester</b>		
	<i>Total</i>	x
	<b>Minimum Total</b>	<b>42</b>

## Environmental Infectious Diseases Sample Registration Guide (MPH)

### Fall Year 1

Course #	Title	Credits
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<b>PubH 6250</b>	Foundations of Public Health	2 cr
<b>PubH 6341</b>	Epidemiologic Methods I	3 cr
<b>PubH 6450</b>	Biostatistics I	4 cr
<b>PubH 6102</b>	Issues in Environmental and Occupational Health	2 cr
<b>PubH 610x</b>	Public Health Entomology	2 cr
<b>Total</b>		13 cr

### Spring Year 1

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
<b>PubH 6385</b>	Epidemiology and Control of Infectious Disease	2 cr
<b>PubH 6751</b>	Principles of Management in Health Services Organizations	2 cr
<b>PubH 610x</b>	Environmental Public Health Biology (if offered)	2 cr
<b>PubH 6109</b>	Environmental Health: Society, Politics and Policy	4 cr
<b>PubH 6741</b>	Ethics in Public Health Practice and Policy	1 cr
<b>Total</b>		11 cr

### May/Summer Year 1

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
<b>PubH 7210</b>	Global Food Systems	varies
<b>PubH 6020</b>	Behavioral Sciences	2
<b>PubH 7196</b>	Applied Practice (AP)	1-5 cr

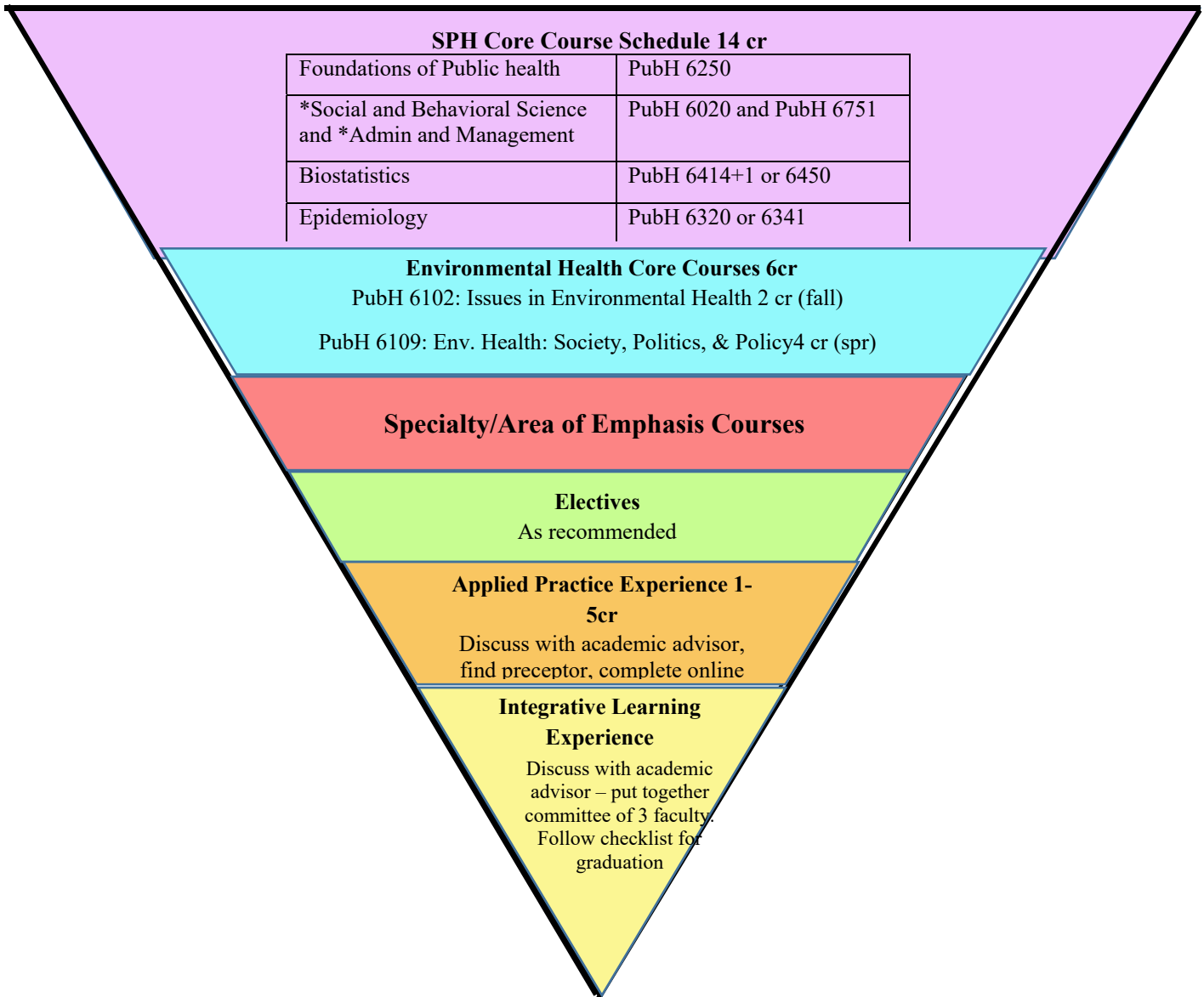
### Fall Year 2

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
<b>PubH 6181</b>	Surveillance of Foodborne Diseases and Food Safety Hazards	2 cr
	Electives	7-10 cr
<b>Total</b>		9-12 cr

### Spring Year 2

<b>Course #</b>	<b>Title</b>	<b>Credits</b>
<b>PubH 6182</b>	Emerging Infectious Diseases	3 cr
<b>PubH 7194</b>	Integrative Learning Experience (ILE)	3 cr
	Electives	
<b>Total</b>		6-12 cr
<b>Total MPH cr</b>	<b>Minimum</b>	<b>42</b>

## Master's Degree Structure: Building Blocks for Your Degree



**\*Not required for the MS**

## VERY IMPORTANT OTHER REQUIREMENTS

Your degree cannot be conferred until the following paperwork is completed even if you attended commencement before finishing your final paper of the Integrative Learning Experience is approved:

1. Apply to graduate (online in myU or submit paper from) –NOTE: degrees are conferred the end of the following month that you complete your requirements and your diploma will be mailed 6 weeks after.
2. Submit an updated Study Plan Form to Program Coordinator one semester before you graduate, so that completion of requirements is verified
3. Complete a post degree Career Survey
4. Submit a copy of your final masters project to Program Coordinator

### Typical Fall Semester

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00			6414 Lab 8:00 - 8:50		
8:55					
9:05	6450 Lab 9:05 - 9:55		6132 9:05 - 11:00	6450 Lab 9:05 - 9:55	8120 9:00 - 11:00
9:55		<b>6414 Lec</b> 9:45 - 11:00 TuTh	VMED 5180 9:45 - 11:00 TuTh	<b>6414 Lec</b> 9:45 - 11:00 TuTh	VMED 5180 9:45 - 11:00 TuTh
10:10			6450 Lab 10:10 - 11:00		
11:00					
11:15		<b>6020</b> 11:15 - 12:30 TuTh		<b>6020</b> 11:15 - 12:30 TuTh	
12:05					
12:20		6450 Lab 12:20 - 1:10	6414 Lab 12:20 - 1:10	6450 Lab 12:20 - 1:10	6192/6193 WeFr 12:20 - 2:15
1:10					
1:25	<b>6101/6102</b> 1:25 - 3:20 MW (1st Half)	6100 1:25 - 3:20 MW	<b>6751</b> 1:25 - 3:20 MW (2nd Half)	<b>6450 Lec</b> 1:25 - 3:20 TuTh	6134 1:25 - 3:20 TuTh (1st Half)
2:15					
2:30				6170 2:30 - 5:30	
3:20					
3:35					
4:25		8161 4:25 - 5:15	<b>6341 (Sec 1)</b> 3:35 - 4:50 TuTh (4:15 - 5:30)	<b>6320 Lec</b> 3:35 - 5:30	
4:40					
5:30					
5:45	6162 5:45 - 7:40	6104 6:00 - 8:00	6450 Lab 5:45 - 6:35	6115 4:40 - 5:30	8160 4:00 - 6:00
6:35					
6:50					
7:40					

Note: **School of Public Health and Environmental Health Core** requirements in red bold.

Note: Single section 6414 and 6450 lab options in blue.

### Typical Spring Semester

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00		<b>6320 Lec</b> 8:00 - 9:55		<b>6320 Lab</b> 8:00 - 9:55	
9:05				6140 9:05 - 11:00	VMED 5181 9:00 - 12:00
9:55	6450 Lab 9:05 - 9:55				8120 9:00 - 11:00
10:10	<b>6450 Lec</b> 10:10 - 12:05 MW	6182 10:10 - 1:10	<b>6450 Lec</b> 10:10 - 12:05 MW		
11:00	<b>6451 Lec</b> 10:10 - 12:05 MW	6150 10:10 - 1:10	<b>6451 Lec</b> 10:10 - 12:05 MW		
11:15					
12:05					
12:20			8142 12:20 - 2:15	6175 12:20 - 4:25	6106 12:20 - 2:15
1:10		6154 1:00 - 2:15 TuTh	6450 Lab 12:20 - 1:10		
1:25	6120 1:25 - 3:20		6123 1:25 - 3:20		6154 1:00 - 2:15 TuTh
2:15					8141 1:00 - 3:00
2:30					
3:20					
3:35	6160 3:35 - 4:50 MW		6160 3:35 - 4:50 MW		
4:25			<b>6342</b> 4:00 - 5:15 TuTh	6100 4:00 - 6:00 (First Half)	<b>6342</b> 4:00 - 5:15 TuTh
4:40		6173 4:40 - 6:40		6183 4:00 - 6:00	
5:30				6130 5:00 - 7:00	
5:45					
6:35	6101 6:00 - 8:00 (First Half) MW	6133 5:45 - 7:45	6101 6:00 - 9:00 (First Half) MW	6116 4:40 - 5:30	6181 5:30 - 7:30
6:50			6131 6:00 - 8:30	6112 6:00 - 8:00	
7:40					
7:55					
8:05					

Note: **School of Public Health and Environmental Health Core** requirements in red bold.

Note: Single section 6414 and 6450 lab options in blue.

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## 1.5 EnHS Division Course List

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Course Syllabi can be found here: <http://www.sph.umn.edu/academics/syllabi/>

### **3106/6106 Making Sense of Health Studies**

(2cr) **Maldonado**

How to critically evaluate health news (and the health research reports on which they are based) to make good, well informed decisions about your health and well-being. Pairs with 6106 Making Sense of Health Studies discussion. Fulfills public health minor requirements for CLA.

**Fall and Spring: 12:20pm -2:15pm Th**

### **6100 Topics: Environmental Health**

(.5-4 cr; prereq EH major or #)

New course offerings or topics of interest in environmental health.

### **Fall 2018 Public Health Entomology 2cr (Oliver)**

Pathogens transmitted by arthropods, particularly mosquitoes and ticks, inflict human disease all over the world. These pathogens represent a broad diversity of persistent foes as well as emerging challengers. This course will provide an introduction to methods used in the field and laboratory for performing arthropod and pathogen surveillance, identification, and other investigations relevant to public health.

**Fall 10:10 AM-12:05 PM MW**

### **Fall 2018 GIS and Spatial Analysis for Public Health 3cr (Berman)**

This course is an introduction to Geographic Information Systems (GIS) and its application for public health research. Classwork will be presented in the form of health related case studies based on research topics pertinent to students in the School of Public Health, where we will use GIS to formulate and address scientific hypotheses. Specifically, the ArcGIS software will be presented as a tool for integrating, manipulating, and displaying spatial health data. Students should leave this course with knowledge to acquire spatial data, visualize geographic trends, and formulate scientific hypothesis for epidemiological applications.

**Fall 09:05 AM-10:25 AM MW**

### **PubH 6100 Spring 2018**

- Public Health Biology (Hedberg - pending)

### **6101 Environmental Health**

(2 cr) **Toscano**

Principles of environmental health relating to macro- and micro-environments and to products consumed or used by people.

**Fall and Spring: 6:00pm-9:00pm MW (first seven weeks)**

### **6102 Issues in Environmental and Occupational Health**

(2 cr; prereq grad student or EH or AEH major)

The field, the current issues and the principles and methods of environmental and occupational health practice. Independent field study to observe, view, and analyze environmental/occupational health programs, contacts on a discussion group on EnHS web page and completion of a take home exam are required.

**Fall 1:25 pm-3:20pm MW (first half of semester-in person) – Simcik**  
**Fall, Spring, Summer : Online option (Lee)**

### **6106 Making Sense of Health Studies**

(2cr) **Maldonado**

How to critically evaluate health news (and the health research reports on which they are based) to make good, well informed decisions about your health and well-being. Meets with 3106 Making Sense of Health Studies lecture. Fulfills public health minor requirements for CLA.

**Fall, Spring: 12:20pm -2:15pm Th**

### **6109 Environmental Health: Society, Politics and Policy**

(4cr) **McGovern and Wattenberg**

We live with various hazards, ranging from chemical and physical to social and behavioral hazards. This course focuses on how assessment of exposure to hazards and the adverse health effects they may cause is used to evaluate environmental health risk, and how environmental policy is developed to protect public health. Students will explore the forces and strategies that contribute to the development of environmental health policy, including the roles of scientific evidence, strategic decision-making, and the political process.

**Spring: T and Th 5:30pm-7:30 pm**

### **6112 Environmental Health Risk Assessment: Application to Human Health Risks from Exposure to Chemicals**

(2 cr; prereq Intro courses in toxicology/exposure analysis e.g., PubH 6104

Environmental Health Effects: Introduction to Toxicology, PubH 6103 Exposure to Environmental Hazards or equivalent) **Wattenberg**

Introduction to risk in the context of regulatory decision-making.

**Fall or Spring: 3:30pm-5:20pm W see course schedule**

### **6115 Worker Protection Law**

(1 cr) **Austin**

The course will focus on the role of government in protecting rights of citizens. Labor movement history will serve as a starting point for a discussion of modern systems for protecting workers from unsafe work places and compensating them for injuries that do occur. Law will be reviewed that protects individuals against class-based discrimination and creates a "right" to work.

**Fall: 4:40pm-6:35pm W**

### **6116 Environmental Law**

(1 cr) **Austin**

Several difficult legal questions arise when pollution protection law conflicts with policy encouraging use of natural resources. Conflict also arises when the government restricts the use



of property without compensating its owner. Course also considers the increasing authority of government agencies to audit business to assure compliance.

**Spring: 4:40pm-6:35pm W**

### **6120 Injury Prevention in the Workplace, Community, and Home**

(2 cr) **Hyun**

Injury epidemiology: analysis of major injury problems affecting the public in the workplace, community, and home using the epidemiologic model and conceptual framework; emphasis on strategies/program development for prevention and control.

**Spring: 1:25pm-3:20pm M**

### **6121 Topics: Injury Prevention in the Workplace, Community, and Home**

(1-2 cr; prereq 6120, 6330 or 6341) **Gerberich**

Selected projects relevant to injury problems.

Spring TBA

### **6123 Violence Prevention and Control: Theory, Research, and Application**

(2 cr) **Ramirez**

Analyses and critique of major theories and epidemiological research pertinent to violence, including characteristics of violence and relevant risk factors, reporting and treatment protocols, and current/potential intervention efforts and prevention initiatives; emphasis on interdisciplinary contributions to violence prevention and control.

Spring: 10:10am -12:05pm M W

### **6130 Occupational Medicine: Principles and Practice**

(2 cr; prereq Grad student or EH major) **Mandel**

Pathogenesis of diseases caused by occupational hazards, evaluating work-related illnesses, overall regulatory framework governing occupational health and safety.

**Spring: 5:00pm-7:00pm W**

### **6131 Working in Global Health ON HOLD**

(2 cr) TBA

Major factors influencing health worldwide, and the interdependence of the developed and developing world in addressing health problems from a global perspective.

Spring: 6:00pm-8:30pm W

### **6132 Air, Water, Health**

(2 cr) **Simcik**

In this course we will explore the issues related to providing adequate levels of clean air and water. Specific issues include local water quantity and quality and local air quality in both the developed and developing world, as well as global air and water quality, and policies meant to protect these resources.

**Fall: 9:05am-11:00am W**

### **6133 Global Health Seminar**

(1 cr) **Toscano, Alexander**

This seminar course will explore various aspects of global health from a public health perspective.

Spring: 5:45pm-7:45pm M

### **6134 Sustainable Development and Global Public Health**

(2cr) No Prereqs; **Toscano**

This course will focus on the effect of globalization on social and sustainable development on global health from a public health perspective. Topics will include the interplay between global stressors such as population, war, economics, urbanization, environment, water and sanitation, communicable and non-communicable conditions and their effects on human health globally. This course is intended for students who do not have extensive public health training.

**Fall: 1:25pm – 3:20pm Tu & Th (first half of the semester)**

### **6135 Job Search Strategies and Career Professional Development**

(1 cr) **Massaglia**

This course is intended for students who are interested in learning how to develop a meaningful career in Public Health and related fields. Students will learn skills that they can apply to finding an Applied Practice Experience or internship, and to finding employment. The skills include the following: assessing self-awareness/strengths, researching job/internships and employers, relationship-building (networking), interviewing, self-marketing (e.g. resumes, cover letters), identification of professional goals, and professionalism in the workplace. The focus is primarily non-academic careers but some class content and work may also apply to academic job searches and careers.

**Spring 2:30 pm- 4:10 pm T (first half of the semester)**

### **6140 Occupational and Environmental Epidemiology**

(2 cr; prereq basic course in epidemiology and biostatistics) **Kim**

Principles and concepts in identifying health effects in the workplace; strategies for identifying excess risk, evaluating strengths and weaknesses of research techniques, assessing bias and confounding.

**Spring: 9:05am-11:00am Th**

### **6150 Interdisciplinary Evaluation of Occupational Health and Safety Field Problems**

(3 cr; prereq PubH 6170 or instr consent) **Anderson**

Guided evaluation of potential health and safety problems at the worksite, recommendations and design criteria for correction; and evaluation of occupational health and safety programs.

**Spring: 10:10am-1:10pm Tu**

### **PubH 6151 OEHN Nursing Seminar**

(1cr) **McGovern**

Seminar focuses on professional role and skill development, competency assessment, and development and implementation of **Applied Practice Experiences** and plan B research papers. Depending on the student cohort each semester, the seminar will be a group learning activity or individualized mentoring based on the instructor's assessments

of students' learning needs.

**Fall, Spring TBA**

### **6154 Climate Change and Global Health**

(3 cr) **Simcik**

This course explores the interconnected relationships between global climate change and human health. During this course students will develop computer models to predict climate change from natural and anthropogenic forces, predict human health outcomes as a result of a changing climate, and combine them to investigate different policy scenarios.

**Spring: 1:00pm-2:15pm Tu & Th**

### **6159 Principles of Toxicology I**

(2cr) **Toscano**

This is the first of two courses that covers fundamental principles of exposure, uptake and metabolism. This course focuses on identifying the mechanisms and effects of chemical, biological, and physical agents on human health. Discussions will focus on the action of environmental agents and how they interact with humans to cause disease. Emphasis is on understanding the principles of toxicology as they apply to understanding toxicant-human interactions.

**Fall: 6:00 pm- 8:00 pm M**

### **6160 Principles of Toxicology II (formerly “Systems of Toxicology” or “Metabolomics”)**

(3 cr); **prereq Biochem, mol biol, org chem or # Peterson**

Pharmacokinetics/toxicokinetics and xenobiotic metabolism. Mechanisms by which phase I and phase II enzymes bioactivate and detoxify xenobiotics. Implications of these biochemical reactions for human health.

**Spring: 3:35pm-4:50pm Tu Th**

### **6161 Regulatory Toxicology**

(2 cr; prereq some background in [toxicology or pharmacology or related field] is recommended) **Balbo**

In-depth introduction to laws (and associated regulations) of U.S. federal regulatory agencies, such as CPSC, EPA, FDA, OSHA, and DOT, that both require and use toxicological data/information in their mission of protecting human and environmental health.

**Spring Th 5:30pm -7:30pm**

### **PubH 6162 Biomarkers**

(2 cr) **Stepanov**

Biomarkers are invaluable tools in identifying and preventing human disease. Due to significant concerns over the risk of human exposure to airborne pollutants, persistent organic pollutants, heavy metals, and other environmental agents, the potential of molecular markers is especially high in identifying susceptible individuals and preventing environmentally-induced disease. This course will introduce current status of molecular

biomarker research, including biomarkers of chemical exposures, genetic toxicity markers, genomics-based biomarkers of susceptibility, and organ and systems biomarkers. The progression of biomarker development and application from the laboratory environment to the clinical or population-based settings and to the development of public health policies and interventions will be discussed. The course will include a collaborative project.

**Fall: 5:45pm-7:40pm M**

### **6170 Introduction to Occupational Health and Safety**

(3 cr; prereq EH major or #) **McGovern**

Introduction to major concepts and issues in occupational health and safety. Apply public health principles and decision-making process in relation to prevention of injury and disease, health promotion of adults and protection of worker populations from environmental hazards.

**Fall: 2:30pm-5:30pm W**

### **PubH 6172 Industrial Hygiene Applications**

(2 cr prereq grad student or EH major, IH specialty or equiv preparation or #) **Arnold**

In this course will explore and apply the basic principles that inform the industrial hygiene field--recognition, evaluation and control of occupational health and safety hazards. Activities will be designed to provide practice applying these concepts to specific workplace health and safety problems.

**Spring: 9:02-11:00am** every other year; odd year spring

### **6173 Exposure to Physical Agents**

(2 cr; prereq grad student or EH major, IH specialty or equiv preparation) **Raynor**

Nature, health effects, monitoring and control of physical agents in working and living environments, ionizing/non-ionizing radiations (including lasers and ultraviolet, visible and infrared light), noise and vibration, and heat and cold stress; dose, response and engineering interventions.

**Spring: 4:40pm-6:40pm M** every other year; even year spring

### **6174 Control of Workplace Exposures**

(3 cr; prereq grad student or EH major, IH specialty or equiv preparation) **Raynor**

Occupational and environmental health specialists spend much of their time recognizing and evaluating potential health or safety hazards. However, these activities, by themselves, do not alleviate problems. Control measures must be implemented to reduce the risk of disease or injury among exposed populations. This course investigates qualitatively and quantitatively the options for reducing human exposure to airborne hazards, particularly in the workplace. Among the options considered will be general and local exhaust ventilation, air pollution control equipment, and personal protective equipment.

**Spring 4:40 – 7:40 PM M** (odd year spring) every other year

### **6175 Environmental Measurements Laboratory**

(2 cr;) **Raynor, Simcik**

Broad treatment of occupational health field. Role of industrial hygienist. Emphasizes practical application of industrial hygiene concepts/methods. Lectures/demonstrations, lab exercises, project.

**Spring: 12:20pm-4:25pm W** Every other year; even year spring

**PubH 6177 Nanotechnology Health & Safety**; Student Option

(1 cr;) **Raynor**

As defined by ASTM, nanotechnology is the emerging field of "technologies that measure, manipulate, or incorporate materials and/or features with at least one dimension between approximately 1 and 100 nm". Toxicology studies have indicated that exposures to nanomaterials present unique health risks not encountered with their parent materials. After completing this course, students will understand how the fundamental concepts and methods of occupational hygiene are applied specifically to nanomaterials.

**Fall: 10:10 AM-12:05 PM M**

**6181 Surveillance of Foodborne Diseases and Food Safety Hazards**

(2 cr; prereq PubH 6320 or PubH 6341) **Hedberg**

Surveillance of foodborne disease and food safety.

**Fall: 3:30pm-5:30pm M**

**6182 Emerging Infectious Diseases: Current Issues, Policies, and Controversies**

(3.0 cr; Prereq-AHC student, #; A-F spring, every year) **Osterholm**

Issues/controversies surrounding emerging infectious diseases. Framework for considering realistic/innovative policies. Bioterrorism, public health preparedness. Pandemic influenza preparedness, smallpox vaccination, antibiotic resistance.

**Spring: 10:10am-1:10pm M**

**6183 Theory and Practice in Foodborne Disease Outbreak Detection, Investigation and Control (1 cr) Hedberg**

This course focuses on the practical basis for developing and implementing methods for foodborne disease outbreak detection, investigation and control; using recent outbreaks to highlight underlying principles. The course will review biological characteristics of major foodborne disease pathogens, clinical features of the illnesses they cause and epidemiologic presentations of foodborne outbreaks. The implications of these characteristics will be discussed in a problem solving, seminar format that examines theory and practice in the context of recent outbreaks. Strategies to promote timely decision-making will be emphasized.

**Spring We 4:00-6:00pm**

**6190 Environmental Chemistry**

(3 cr; prereq gen chem, org chem or #) **Simcik**

Overview of chemistry of air, water and soil, pertinent environmental problems; human and ecological multi-media exposures to chemicals in the environment.

**Fall: 9:45am-11:00am Tu Th**

**6192 Measurement and Properties of Air Contaminant**

(2 cr Prereq: Good grasp of [elementary physics, chemistry, mathematics including calculus) **Raynor**

This course explores the physical nature of gaseous and particulate air contaminants, their occurrence in workplaces, the factors governing generation and dispersal, the criteria, rationales and standards under which practical measurement in the workplace is

conducted, the principles underlying industrial hygiene measurement techniques; processes of inhalation and deposition of aerosols and their ultimate fate, and scenarios linking exposure with aerosol-related ill-health

**Fall: 12:20pm-2:15pm WF (first half of the semester) every other year odd fall**

### **6193 Advanced Topics in Exposure Sciences**

(2 cr A-F only; prereq 6192 or instr consent)

**Fall: 12:15pm-2:20pm WF (second half of the semester) every other year; odd year fall**

### **7193 Directed Study: Environmental Health**

(1-4 cr; prereq grad student, EH major, #) EnHS Faculty

Directed study in a topic at discretion of faculty member. Usually students and faculty agree upon an area they feel could enhance the advanced masters' students' educational experience. *Independent Study*

**Fall, Spring, Summer**

### **7194 Integrative Learning Experience (ILE): Environmental Health**

(1-5 cr; prereq EH major or #) EnHS Faculty

Directed projects or examination in environmental and occupational health. *Independent Study*

**Fall, Spring, Summer**

### **7195 Culminating Experience/Masters Project for MS student only**

### **7196 Applied Practice (AP): Environmental Health**

(1-5 cr; prereq EH major or #) EnHS Faculty

Directed practicum in environmental and occupational health. *Independent Study*

**Fall, Spring, Summer**

### **7200 and 72XX Topics Courses Public Health Institute**

May Session single day or three week intense courses.

<http://www.sph.umn.edu/ce/institute/>

### **8100 Topics: Environmental and Occupational Health**

(1-6 cr; prereq #) EnHS Faculty

New course offerings or topics of interest in environmental and occupational health.

Fall, Spring, May session, Summer; Time and place to be arranged

### **8120 Environmental Health and Safety Research Seminar**

(1 cr; prereq EH major, OIPRTP specialty or equiv, PubH 6120, 6330 or 6341, 6450)

**Gerberich, Alexander**

Facilitate student research efforts in occupational injury epidemiology and control through roundtable discussions and interdisciplinary involvement.

**Fall: 9:00am-11:00am F; Spring: 12:20pm-2:30pm F**

### **8160 Advanced Toxicology**

(2 cr; prereq biochem, molecular biol, PubH 6160, #) **Peterson**

Cellular and molecular mechanisms by which xenobiotics cause toxicity; investigative approaches to current research problems in toxicology and carcinogenesis.

**Fall: 4:00pm-6:00pm W**

### **8161 Current Literature in Toxicology**

(1 cr; S-N only, prereq - 6104) **Peterson**

The objective of this course is for students to critically read and discuss current toxicological literature. The topics covered in this course will change every semester with the goal to learn modern methods in toxicology and develop critical thinking skills.

**Fall: 4:25pm-5:15pm M**

### **8166 Experiences in Toxicology Research**

(3.0 cr; Prereq-Environmental health PhD student in toxicology concentration; A-F only)

**Peterson**

Students complete research projects in labs of toxicology program graduate faculty members. *Independent Study*

**Spring TBA**

### **8194 Directed Research: Environmental and Occupational Health**

(1-6 cr; prereq grad student, EH major) EnHS Faculty

Opportunities to pursue research in environmental and occupational stresses on human health. *Independent Study*

Fall, Spring, Summer; Time and place to be arranged

### **VMED 5180 Ecology of Infectious /Diseases**

(3cr; no credits if student for VMED 5180 if students has previously taken PubH 6180, PubH 6380 or CMB 5180.) **Singer**

This course focuses on the ways in which host, agent and environmental interactions influence the transmission of infectious agents. Specific topics related to these microbes include: transmission probability, herd immunity, evolution of virulence, host specificity, host-agent co-evolution, antimicrobial resistance, environmental dissemination, eradication and control, and use of analytical and molecular tools.

**Fall: 9:45 – 11:00 TuTh**

### **VMED 5181 Spatial Analysis in Infectious Disease Epidemiology**

**(3cr; preq intro to Epi, statistics) Singer**

Knowledge of the spatial distribution of disease events (exposures and outcomes), and factors that determine where disease occurs, is a foundation of epidemiology and public health. Although disease maps have a long history of use in public health, it is only recently that methods for analysis of spatial disease data have become widely available. This course will provide students with a framework for analyzing spatial disease data, and illustrate the importance of such techniques in public health, geography and epidemiology. With this knowledge, students should be able to design, analyze and report on their own studies. The course will focus on human and animal health-related examples. The course will focus primarily on the spatial distribution of infectious diseases, but the principles discussed apply equally well to non-infectious diseases.

**Spring: 9:00-12:00 F**

## 2. ENHS MPH DEGREE REQUIREMENTS

### 2.1 MPH Requirements, Program Curriculum - Coursework and Credits

MPH Students must complete a minimum of 42 credits in the following areas: General **SPH Core** courses, **EnHS Core** courses, **concentration area**, **Applied Practice Experience (PubH 7196)**, **electives and Integrative Learning Experience (ILE) credits (PubH 7194 minimum 1-5 cr.)**.

Students must maintain a minimum GPA of 3.00 during all semesters to remain in good standing to earn an MPH degree. Students are expected to meet with faculty advisors at least once a semester. Students can request a meeting via email or walk-in with the administrative advisor (major coordinator) at any time in the semester.

Students working towards an MPH degree must satisfy competency requirements in the six core areas of public health – administration, behavioral science, biostatistics, environmental health, epidemiology, and ethics – by **completing ONE in each area**.

Students must:

- Satisfactorily pass one of the pre-approved courses in the core area with a **B- or better** (see pre-approved course list below) Course will have to be repeated if a lesser grade is received; OR
- Pass an equivalency exam in the core area. OR
- Pass an advanced course in the core area as approved by the division head or the Educational Policy Committee, OR
- Complete a graduate level course, with a grade of B or better, at an accredited university or college that meets the competencies defined by CEPH. The Educational Policy Committee, upon petition of the student, will determine acceptance of a course for transfer.  
Petition form .

#### Pre-approved Core Courses Meeting the Public Health Core:

**PubH 6250** Foundations in Public Health Foundations in Public Health – 2 cr

#### **Administration**

PubH 6751 Principles of Management in Health Services Organizations – 2 cr.

#### **Behavioral Science**

PubH 6020 Fundamentals of Social and Behavioral Science – 2 cr.

#### **Biostatistics**

PubH 6414 Biostatistical Literacy I – 3 cr. plus 1 cr of statistical programming course (see appendix for recommended)

PubH 6450 Biostatistics I – 4 cr.

PubH 6451 Biostatistics II – 4 cr.

#### **Environmental Health**

PubH 6102 Issues in Environmental Health – 2 cr.



## Epidemiology

PubH 6320 Fundamentals of Epidemiology – 3 cr.

PubH 6341 Epidemiologic Methods I – 3 cr.

## Ethics

PubH 6741 Ethics in Public Health: Professional Practice and Policy – 1 cr.

PubH 6742 Ethics in Public Health: Research and Policy – 1 cr.

## Residency Registration Requirement

Students are required to register for at least 2 semesters and 20 credits in the School of Public Health.

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## 2.2 Course Transfer, Credits, Substitutions, Waivers, Grading Policies, Residency Petitions

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MPH students must with a **minimum of 42 credits**. A student may seek transfer of up to **40%** of the total number of credits required to complete the MPH degree. Courses approved for transfer into the program must be graduate or professional degree level courses taken at an accredited institution within the last five years. Courses older than 5 years may be allowed for individuals with prior earned advanced degrees who have been actively working in their field of study as demonstrated by their current resume. Course credits may be used to satisfy public health core or other program requirements as jointly approved by the appropriate Major Chair and/or Educational Policy Committee and Associate Dean for Academic Affairs.

MPH students who have completed graduate-level coursework at the University of Minnesota or another college or university may petition to transfer those courses in toward their MPH degree. Courses taken before the awarding of a baccalaureate degree cannot be transferred. To be considered for transfer, graduate level coursework must have been taken at an accredited graduate institution within the last five years and earned at a B- or better level.

Process: Students

1. Meet with their advisor to discuss if the course is petition-able. If the petition is acceptable to the advisor, the student will complete and sign the *Petition* form, obtain the advisor's signature, and attach an official transcript on which the final grade has been posted. Petition form is available at: <http://policy.umn.edu/forms/otr/otr172.pdf>
2. Submit the petition form to the Program Coordinator for processing.
3. The Program Coordinator will forward the petition to the major chair and then to the Associate Dean for final evaluation and/or approval.

Students admitted to the Public Health Certificate in Core Concepts program are considered officially enrolled in the School of Public Health. While successful completion of the Certificate program does not entitle recipients to future admission to SPH degree programs, recipients are free to apply to degree programs upon completion of the Certificate. Should they be admitted to an MPH major, the 15 credits qualifying for the Certificate will be accepted if courses **are passed with a B- or better** fulfilling the public health core requirements, and do not count as transfer credits.

## Course Substitutions and Waivers

All student requests that deviate from the degree curriculum requirements outlined in this Guidebook must be made on a *Petition* form

Students should note that the process for approving a course substitution or waiver could take up to one month, so plan accordingly. Do not register for an equivalent course until you know if your petition was denied.

### **Course Substitution Procedures:**

The following process should be followed when requesting that a course substitute for a required course in your degree program.

1. Gather the course syllabi of the required course in your degree program and the proposed substitute course and a transcript on which the proposed course grade has been posted (if the proposed course has already been completed).
2. Complete the *Petition* form with the following information in each section:
  - **REQUEST SECTION:** describe the course requested for substitution including the course title, number of credits, term and year taken, and the name of the institution where the course was taken. Also list the course/requirement in your degree program for which you are asking for the substitution.
  - **REASON/EXPLANATION SECTION:** Indicate what skills and/or content overlaps between the required course(s) and the proposed substitute course(s).
3. Compile the above materials and have the request reviewed by your advisor. He/she will complete the Department section of the *Petition* form and indicate whether or not they approve of the request.
4. After the advisor has made his/her recommendations, the student should submit these materials to the Major Coordinator who will forward it to the appropriate Credentials Committee for review. The student will be notified via e-mail of the committee's decision.
5. If the substitute course is to replace a School of Public Health Core course (administration-PubH 6751, behavioral/social science-PubH 6020, biostatistics-PubH 6414/6450, environmental health-PubH 6101/6102, epidemiology-PubH 6320/6341, ethics-PubH 6741/6742), there is an additional step to get School level approval. To complete this next step, provide two additional copies of the above materials. All of those materials should be submitted to your Major Coordinator. Upon receipt of those materials, the Major Coordinator will review the request with the Major Chair and then if approved by the Major Chair, all copies of the request will be forwarded to Carol Francis to be presented to the appropriate SPH Educational Policy committee members. The student will be notified via e-mail of the committee's decision. If the Major Chair does not approve of the request, the Major Coordinator will inform the student that the request will not be forwarded to the SPH Educational Policy Committee for review.

**PETITION form** (click to access)

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## **SPH Grading Policies**

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### **Grade Point Average**

Students must achieve a grade point average of no less than 3.0 (B) across their entire program to receive an MPH degree.

### **S-N Grade Option**

MPH students may **take no more than 20% of their coursework on an S-N grading basis**, exclusive of those topics, seminars, and Applied Practice (AP) offered only on an S-N basis.

## Public Health Core Courses

Courses designated as part of the public health core must be taken for a **letter grade (A-F)**. Students will be required to achieve **no less than a B- grade in each course taken on an A-F basis**. Students may retake public health core courses at their own expense until they achieve a grade of B- or better. However, a retaken course may be counted only once toward degree requirements in the student's study plan. Courses may not be repeated more than once.

Each public health major may require higher levels of achievement for its own students in public health core courses that are also core to the major. This may include restrictions on retaking public health core courses that are also core to the major, or requiring more than a B- performance level. Students should consult their Major Coordinator for documentation of these requirements.

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## SPH Residency -Minimum Registration Requirement

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Students are required to register for at least **2 semesters and 20 credits** in the School of Public Health.

### Course Numbers and Graduate Credit

5xxx, 6xxx, 7xxx and 8xxx-level courses are considered graduate-level. 1xxx and 3xxx-level courses are for undergraduates and will not receive approval for graduate credit. Under some circumstances – with approval of the student's Major Chair – 4xxx level courses may also be applied toward a MPH degree as long as they are taught by a member of the graduate faculty. Courses taken before the awarding of a baccalaureate degree cannot be applied toward a MPH degree.

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## 2.3 Applied Practice (AP) requirement Learning Agreement Online Module: PubH 7196 Registration

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The purpose of the AP is to help students develop practical skills and competencies as well as provide an opportunity for the student to enhance job placement following completion of the degree.

**Applied Practice (AP):** All students matriculating in the MPH program must complete a formal, supervised fieldwork experience (internship). The AP requires close extensive discussion and pre-approval before registration is allowed. Credits can range from 1-5 credits. (**S/N grade option only**). Registration will be under your academic advisor's section of PubH 7196.

### **NOTE:**

**All MPH students must complete a Learning Agreement online :** This includes all domestic and international experiences. International experiences require more planning time and more steps than domestic ones – at least 3-4 months of planning ahead.

**Travel to countries on the U.S. State Department travel warning list:** University policy requires students, and faculty/staff leading students, traveling to countries on the U.S. Department of State's travel warning list to seek special permission from the University's International Travel Risk Assessment and Advisory Committee.

For general information about the Applied Practice requirement and help with finding a Applied Practice Experience or how to complete the online Learning Agreement and for a suggested timeline for the Applied Practice Experience (when should I start planning for an AP?) visit the AP homepage-an excellent resource. The details of the AP goals and objectives have changed from previous years. Students start fall 2018 and beyond will follow the new guidelines to be compliance with the accrediting body (CEPH) requirements and can be found online on the SPH website

#### **Learning Objectives:**

- Learn first-hand about the organization, operations, and special activities of selected agencies, institutions, and industries concerned with environmental health (EnHS) or related programs.
- Gain insight into programs, personnel management, governmental and public relations, legislative support and, particularly, knowledge of special investigations conducted by these organizations.
- Participation in activities of EnHS programs external to the University adds a dimension of experience to the curriculum that enriches the student's training and will be beneficial in seeking employment.

#### **Requirements:**

- Each major has established requirements for completion of the AP.
- Student must negotiate terms of the Learning Agreement with academic adviser and preceptor.
- Register under PubH 7196 for a minimum of 1 credits, (S/N grade option).

MPH students **MUST** complete an AP **Learning Agreement** online **AFTER** negotiating terms of the **placement** with your advisor and preceptor. Contact the Program Coordinator for a registration permission number which will be set up uniquely for you. **Be sure to check the signature box and click the submit button on the online Learning Agreement** for your **Learning Agreement** to route appropriately to your advisor and preceptor for approval - **this has to be done before requesting a permission number to register for PubH 7196.**

**For AP planning resources and online Learning Agreement go to:**

<http://www.sph.umn.edu/careers/fe/>

Upon researching the information provided on the website students may request to set up a meeting with the advisor and or program coordinator.

AP online **Learning Agreement** process: fillable online form provides streamlined, comprehensive information for the student, their preceptors, and faculty advisor.

The completed form is automatically routed electronically after the student initiates, completes and signs the online form-this. Be sure to check the box for a signature before submitting. Form routes automatically to:

- 1) Student emails major coordinator and requests permission number to register for PubH 7196 via email. Include your student ID number, section of the course you wish to register for, name of instructor who will enter a grade for you and who reviewed the agreement; specify semester to register for.
- 2) Preceptor email address
  - Preceptor logs on and reviews form and may ask for modifications before approving and signing off. Discussions and several meetings prior to completion of the form helps.
- 3) Advisor email address
  - advisor approves or asks for modification
- 4) To major coordinator reviews and approves

To route the agreement first check the signature box at the bottom of the learning agreement and **click "Submit"**, the agreement form will automatically move to the next step in the process. Forgetting to click the submit button and or skipping checking the signature box will cause the agreement to stall and not route to preceptor, advisor and major coordinator. An email alert will be sent to them with instructions and a log-in link for reviewers to review, edit, and sign the agreement. At the end of the FE period– student and preceptor must complete an online evaluation for the student to obtain a grade to be posted by the instructor.

Neither prior professional degrees nor prior work experience in a field not closely related to the MPH degree program are sufficient grounds for waiving the AP requirement.

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## Applied Practice Experience: EnHS Competencies

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### Goals

The Applied Practice (AP) is a hands-on opportunity to implement public health knowledge and skills in a public health practice setting. The goal of the AP is to demonstrate the application or practice of **at least five public health competencies**, as established by the Council on Education for Public Health (CEPH). **At least three of the competencies must be foundational; the remainder may be foundational or program specific.** CEPH foundational competencies and MPH foundational competencies are listed below:

1. Recognize hazards in various environments
2. Describe factors that influence the presence and magnitude of hazards
3. Identify pathways of exposure to environmental hazards
4. Integrate exposure and health effects knowledge to investigate health risk and inequity
5. Propose risk management strategies, such as education, policy, and technology, directed toward environmental health stakeholders, including government, industry, and community groups

## Timing

The AP should complement the Environmental Health Sciences training and therefore is recommended after completion of PubH 6102 “Issues in Environmental Health” and PubH 6109 Environmental Health: “Society, Politics and Policy.” Most students will elect to do their AP during Summer semester between their first and second years, although there may be flexibility for individual situations; these should be discussed with the AP Faculty Advisor.

The EnHS AP opportunity provides students with a means of gaining additional insight into programs, personnel management, governmental relations, public relations, legislative support and, particularly, knowledge of special investigations conducted by these organizations. Participation in the activities of EnHS programs external to the University adds a dimension of experience to the curriculum that enriches the student's training and will be beneficial in seeking employment.

Various governmental units are involved with EnHS programs in the Twin Cities metropolitan area. Some examples of agencies with which students might seek affiliation for the AP include but not limited to: Minnesota State Health Department, Minnesota Pollution Control Agency, Environmental Quality Board, Minnesota State Planning Agency, US Food and Drug Administration, Minnesota Department of Natural Resources, St. Paul Water Department, Metropolitan Council, Minneapolis Water Department, and the Metropolitan Waste Control Commission. There may also be possibilities for assignments with local health department units of the cities of Minneapolis, Bloomington, Edina, St. Louis Park, Fridley, and Richfield, or with the Anoka, Ramsey, or Scott County Health Departments, etc. In some cases students may wish to select affiliation with an EnHS program in a local industry or with a hospital facility. A number of out of state positions are also available during the summer.

Please be aware that certain facilities are required by Minnesota law to submit paperwork for a criminal background check for all personnel with direct, unsupervised client contact; [see section 5.9](#) of this guidebook.

1. All MPH majors are required to complete the AP as part of their degree program (also encouraged for MS students).
2. Students, in consultation with their advisor, should select the particular organization with which they wish to work. Selection of the organization, contact with it and the designation of a preceptor in the organization may be arranged any time during the academic year.
3. AP can be a minimum of 1 credit and up to 5 credits. These credits may be taken during one semester, or divided among several semesters. As a guideline, a **minimum effort of 45 hours** per credit is expected.
4. A maximum of 5 credits (with advisor's consent) earned for the agency experience may be applied toward the fulfillment of degree credit requirements as determined by the faculties of the Graduate School and the School of Public Health.
5. To be eligible to register for, PubH 7196, a student should first complete a learning agreement form, available online.

6. The form routes electronically to be signed by the person the student will work with at the agency, and the student's advisor as soon as arrangements are completed for the agency assignment. The form is intended to avoid misunderstandings concerning expectations on the part of all parties involved.
7. Students must submit an **Applied Practice Experience evaluation/report(s)** to their academic advisor to obtain a grade. The nature and extent of the report(s) is determined by the advisor. If an agreement is not completed that semester, the advisor will assign a grade of "K" to be changed to "S" or "N" once the evaluations are in.
8. Some students may find certain aspects of the agency activity of sufficient interest to do a "Plan B or Plan C" project while assigned to the agency. This requires study that is more extensive, an appropriate literature review, and an expansion of the subject beyond the **Applied Practice Experience**. The ultimate feasibility of such arrangements should be decided jointly by the student, the advisor, and the preceptor. This applies to also to a student wishing to use their place of employment to do a master's project.
9. Grades for PubH 7196 are submitted when the major advisor has accepted and approved the report(s) on the **Applied Practice Experience**. **S/N is the only grading option available.**

## Student Guidelines for Understanding the AP process and requirements:

### What is an Applied Practice?

#### (AP)

The Applied Practice (AP) is a hands-on opportunity to implement your public health knowledge and skills in a real-world setting. The goal of the AP is to demonstrate the application or practice of at least five public health competencies, as established by the Council on Education for Public Health (CEPH). At least three of the competencies must be foundational. The other two competencies may be specific to your program. To view the list of foundational competencies, [click here](#). For program-specific competencies, please contact your program advisor.

To show application or practice of these competencies, you are required to submit two products developed as part of your AP.

### What should I know before I start my Applied Practice (AP)?

- The AP can be completed through a combination of experiences. You should consult with your faculty advisor to determine which options are most appropriate for you, and whether your program has any specific requirements or restrictions for the AP.
- All MPH students must complete an AP while enrolled in their degree program. Prior work/volunteer activities or coursework that begins before the learning agreement is approved will not be accepted. *Waivers are not accepted.*
- You will work with your preceptor/supervisor and faculty advisor to make sure that the AP benefits both the practice site and you.

- Dual/Joint degree students (e.g. MPH/JD) should consult with their programs to determine if the AP can fulfill requirements for both degree programs.
- The AP may be completed at the student's current workplace, if applicable, but must begin after the learning agreement is approved.
- An AP can be paid or unpaid.

## What qualifies for the AP?

The AP may be fulfilled through any combination of the following options.

Consult with your advisor to determine which options are most appropriate for you, and whether your program has any specific requirements or restrictions for the AP.:

- A practicum or internship completed during a summer or academic term while enrolled in their degree program.
- Completion of an AP-designated course.
- Co-curricular experiences (e.g., service and volunteer opportunities, such as those organized by a student association).

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## IMPORTANT: The following do not qualify as an AP

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- Mission trips
- Clinical work
- Prior work/volunteer activities or coursework that begins before the learning agreement is approved

## How do I find an Applied Practice Experience?

An AP can be completed in:

- Governmental agencies
- Non-governmental agencies
- Non-profit agencies
- Industrial organizations
- For-profit settings
- Appropriate university-affiliated practice-based settings; university-affiliated settings must be primarily focused on community engagement, typically with external partners. University health promotion or wellness centers may also be appropriate sites.

Students may use many different resources and strategies to locate AP opportunities and connect with organizations. Below are some resources and tips.

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## Resources for a practicum or internship:

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- Visit the Applied Practice [Experience Module](#), which allows you to search for past applied practice experiences.
- Visit the [Career and Professional Development Center's website](#).
- Complete a required Competency Assessment Tool (CAT) which can provide a listing of prospective organizations for your AP.
- Visit the [SPH job posting system](#) which allows you to search for applied practice experience opportunities and part-time opportunities that may meet the applied practice experience requirement.
- Visit the [Resources page](#) for additional information as you write your learning objectives and locate applied practice experiences.

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### Tips for finding a practicum or internship:

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- Start [networking](#) with faculty, staff and peers who work in your area of interest (specific position, organization, industry).
- Request an [informational interview](#) with an organization you would like to work with. They are one of the best ways to learn about industries, careers and organizations and possibly applied practice experience opportunities not advertised.
- Connect with SPH Alumni through [alumni community events](#), the [SPH Mentor Program](#), and the University of Minnesota School of Public Health [LinkedIn](#) Group to contact alumni to do an informational interview.

## Additional requirements for international applied practice experiences

Students who want to complete an international AP must complete the University of Minnesota [university purpose travel registration process](#). Once these requirements are complete, they will pre-populate on the Applied Practice Experience learning agreement.

Note: Students must discuss self-identified travel plans (international experiences that are not promoted by the University) with an appropriate Education Abroad Office, University faculty and/or staff member prior to confirming travel plans. To familiarize yourself with student expectations and definitions while abroad, visit the [Student Travel and Education Abroad: Health and Safety Policy](#).

International Students: If you plan to complete an AP outside the USA please consult ISSS to make sure you can travel outside the USA while on your student visa. You may have additional permissions and requirements.

**IMPORTANT:** The Global Health Coordinator has to also sign off on learning agreements that are international.

## How do I choose competencies to address through the AP?

The AP learning agreement directs you to complete the required Competency Assessment Tool (CAT), and start a learning agreement for your AP. This tool is designed to help you choose competencies to address through your AP. You should also discuss which competencies to address with your advisor.

**IMPORTANT:** The preceptor, student, and student's advisor need to agree on the the competencies before the AP begins.

## What are AP products and how do I document them?

The products are created as part of the AP to benefit the practice site. The products must demonstrate that the student has applied specific competencies. The student must submit a minimum of 2 products for the AP. Each product does not need to demonstrate application of all five competencies. For example, one product (e.g., a written assignment) may demonstrate 3 competencies and the second product (e.g., a video presentation) may demonstrate the other 2 competencies. As another example, students may include five products in their portfolio if each one demonstrates a competency.

Competencies and products may differ from student to student. Students will upload the products to the Applied Practice Experience learning agreement for their advisor, preceptor and program coordinator to review and approve.

While students may complete experiences as individuals or as groups in a structured experience, each student must present documentation demonstrating individual competency application or practice.

### Product examples include, but not limited to:

- Written assignments
- Journal entries that document activities that demonstrate practice or application of a competency
- Completed tests
- Brochure
- Flyer
- Training manual
- Policy brief

- Videos
- Multi-media presentations
- Spreadsheets
- Grant proposals
- Budgets
- Site-specific reports
- Health promotion materials
- Training course curriculum
- Program evaluation reports
- Surveys
  - Websites
  - Posters
  - Photos
  - Other digital artifacts of learning

If proprietary information is part of the student's experience, a student will not have to submit that information, but instead can summarize the project in a journal entry.

## The Learning Agreement

The AP learning agreement directs you to complete the required Competency Assessment Tool (CAT), and start a learning agreement for your AP. In the AP learning agreement, you will provide the demographic data: where, when, who, etc., identify the competencies that will be fulfilled and at the end of your experience, and upload your AP product(s) for your adviser to review.

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### Step by step instructions:

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1. Fill out the Competency Assessment Tool (CAT). This tool is designed to help you identify which competencies you plan to address through the AP. Discuss the results with your advisor.
2. Discuss the five competencies you will address through the AP and the two products that will result from the experience with your preceptor prior to starting the learning agreement. Meet with your advisor to review the competencies and products you agreed on with your preceptor. It is important that you and your preceptor agree on the expectations for the AP.
3. You will document the five competencies in the Learning Agreement.
4. Initiate and submit the online Learning Agreement prior to beginning the experience.
5. Your Preceptor approves AP learning agreement.

6. Then your Advisor approves AP learning agreement.
7. Then your Coordinator approves AP learning agreement.
8. Once the agreement is signed, register for the appropriate course number of credits.  
You will need to obtain a permission/section number from your Program Coordinator.
  - Note: You are required to enroll in Applied Practice credit(s) and submit the agreement before beginning the AP. You may only commence the AP after you are registered for the credit(s) and the transcript shows registration for AP credit(s).  
Ideally, you will complete the AP during the term for which you are registered, but if necessary, a portion of your AP can be done in a subsequent term.
  - Note: Some facilities require a background criminal background check. If students need a background check they can contact the Student Service Center at [sph-ask@umn.edu](mailto:sph-ask@umn.edu).
9. Start the applied practice experience.

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## Steps for the submitting the products

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## How do I plan for my Applied Practice Experience?

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The following steps may be helpful in your planning process. If you require assistance throughout this process, please contact your program coordinator.

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### 2.4 MPH Integrative Learning Experience (ILE) Requirements:

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- 1 - 5 credit(s) of PubH 7194
- The ILE must address at least three competencies that include both foundational and program-specific competencies
- The ILE is a culminating experience that can take many forms including:
  - practice-based project
  - capstone course
- The outcome of the ILE must be a high quality written product
  - The ILE product must demonstrate the student's proficiency with written communication
  - The ILE product must demonstrate that the student can write a well-developed, logical, thoughtful document that communicates clearly
  - To achieve these goals, it is expected that the ILE product will go through a process of review and revision
- Students write a brief ILE proposal that will be reviewed and approved by the advisor, and identifies the following:
  - At least three competencies, which include both Foundational and Environmental Health competencies
  - A proposed ILE through which they will synthesize the competencies
  - A proposed ILE product
- Two faculty members will evaluate, assess, and approve the final ILE product
- Students may use the same experience for their AP and ILE
  - Students who use the same experience for both the AP and the ILE must create products that meet the requirements that are specific for the AP and the ILE
  - The products for the AP and ILE may be different
    - For example, an AP product must be created as part of the experience and benefit the practice site (e.g., write a Fact Sheet)
    - An ILE product may be a written report on the experience or activities at the practice site, but the report does not need to be written as part of an activity or to benefit the practice site
- Examples of products
  - research paper based on data analysis or literature review
  - program evaluation report
  - training manual

- policy statement
- legislative testimony with accompanying supporting research
- white paper
- logic model with a report for its use
- case study integrated with the literature
- opinion/editorial piece
- pamphlet that communicates information to the public

## Frequently Asked Questions?

1. What do I do if my competencies change during my AP?
2. What if my AP preceptor changes or eliminates some of my duties (that would affect end products) during my time there?

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## 2.5 Progress Review/ Annual Review, Study Plan

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MPH Study Plan form is available here: [http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA\\_StudyPlan.pdf](http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA_StudyPlan.pdf)

Students are required to submit a completed MPH Study Plan to their Major Program Coordinator at least one semester prior to their anticipated completion of coursework. Earlier submission (e.g. in the second to last semester) is suggested to allow the SPH and major coordinators to review the study plan and notify students if they are missing any requirements prior to their last term of study. Complete the Word doc version, save and email to your advisor and major coordinator

### Annual Progress Review

- a. **Annual Review** Per university policies and guidelines programs must review the progress of each master's student annually. Students deemed not to be in good standing must be informed of the results of the review in writing, with a copy to the student's advisor. See annual review self-assessment form –Appendix A.

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## 2.6 MPH Integrative Learning Experience PubH 7194 Registration

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This approach may be associated with the PubH 7196 (**Applied Practice Experience**). Students should register for the Masters' Project 1-5cr - PubH 7194 Master's Project: Environmental Health. Students obtain a permission number from the major coordinator after getting the master's proposal approved by the research advisor and then register for PubH 7194 under the academic advisor's section on onestop.

### **Approval Process (before requesting a permission number to register for PubH 7194 master's project) do this:**

In order to maximize the benefit from the research advisor's input, students must have their topic approved by their faculty research advisor and academic advisor. Approval must be received in writing before work can begin on the project proposal. After receiving the research advisor's approval on the topic, the student should begin to develop the project proposal. The *Masters' Project Proposal Form* is considered a useful guide for proceeding with an agreed upon approach to the master's project. The proposal sets up a guiding

framework for the project and establishes a timeline for completion that is mutually satisfactory to students and their advisor. The project proposal should include at the minimum, the following:

The research advisor will determine if there are other preferred additions or subtractions.

## Completion of the Masters' Project Integrative Learning Experience (ILE)

Students must keep in touch with their research and academic advisor(s) and third committee member during the course of the Masters' Project. Each advisor should specify how he/she prefers to work with the student. Students should know that faculty may decline working with a student's project that is out of their area of expertise or if the student's timeline does not work out for the faculty member. Therefore, students are encouraged to seek information and ideas from other faculty members as well. A draft or drafts of the project should be submitted to the research advisor for review and comments at least two to three weeks in advance. Comments should be incorporated into the final draft of the project, and resubmitted to the research advisor and readers. Students desiring publication of the master's project should discuss this with their advisor. Master's projects written in publication format meet the program requirements with prior research advisor approval. Once the research advisor has approved a final version of the project, the final draft should be typed and submitted for acceptance.

## Comprehensive Examination

MPH students complete an oral examination as specified by the major. For EnHS the oral exam is based on the a student's written result of the project. All students are expected register S/N for PubH 7194 Culminating Experience/Master's project credits (3-5cr) and to hold a project defense in order to get a grade for the registration and be cleared for graduation. A project not completed within the same term of registration can be continued by the instructor with a "K" grade posted on the transcript.

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## 2.7 Time Frame, Application for Degree and Graduation

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Effective January 2013 students must now complete and have the degree awarded within five calendar years after initial enrollment in the graduate program. Previous maximum was 7 years. With full time study the MPH can be completed in 2 years.

### To be cleared for Graduation Students must:

- Submit a completed or updated Study Plan to the major coordinator **at least one semester** prior to the anticipated completion of coursework. The form is available here: [http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA\\_StudyPlan.pdf](http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA_StudyPlan.pdf)
- Students apply to graduate through the myU portal if currently active or by submitting the following form before the first business day of the month in which a student intends to graduate: <http://policy.umn.edu/Forms/otr/otr177.pdf>
- Students must work with the academic advisor and or project advisor on the format of the project paper. The Public health librarian is also a good resource for guidance on style.
- Circulate the Master's Project paper to committee at least 3-4 weeks before oral examination date to allow enough time for the committee to review the project paper and to give feedback.
- Students are responsible for arranging for a time to present the oral before their committee. Notify Major Program Coordinator of the date and time of the oral exam in order to get a room reserved in advance. Presentations are typically 20 -25 minutes long.
- Submit a pdf copy of the Master's Project paper and abstract to Program Coordinator.

## 2.8 Foundational CEPH Competencies

<b>Evidence-based Approaches to Public Health</b>
1. Apply epidemiological methods to the breadth of settings and situations in public health practice
2. Select quantitative and qualitative data collection methods appropriate for a given health context
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software as appropriate
4. Interpret results of data analysis for public health research, policy of practice
<b>Public Health &amp; Health Care Systems</b>
5. Compare the organization, structure and function of health care and public health systems across national and international settings
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at the organizational, community and societal levels
<b>Program Planning &amp; Management to Promote Health</b>
7. Assess population needs, assets and capacities that affect communities' health.
8. Apply awareness of cultural values and practices to the design or implementation of public health programs
9. Design a population-based project, program, policy, or intervention
10. Explain basic principles and tools of budget and resource management
11. Select methods to evaluate public health programs or policies
<b>Policy in Public Health</b>
12. Discuss multiple dimensions of the policy-making process, including the role of ethics and evidence
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations
15. Evaluate policies for their impact on public health and health equity
<b>Leadership</b>



16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and , guiding decision making

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### **Communication**

17. Apply negotiation and mediation skills to address organization or community challenges

18. Select communication strategies for different audiences and sectors

19. Communicate audience-appropriate public health content, both in writing and through oral presentation

20. Describe the importance of cultural competency in communicating public health content

21. Perform effectively on interprofessional\* teams

### **Systems Thinking**

22. Apply systems thinking tools to a public health issue

\* "Interprofessional education occurs when students from two or more professions learn about, from, and with each other to enable effective collaboration and improve health outcomes." From: Framework for Action on Interprofessional Education & Collaboration Practice (WHO/HRH/HPM/10.3). Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g. One Health)

## **2.9 12 CEPH Knowledge Domains:**

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening etc.
6. Explain the critical importance of evidence in advancing public health knowledge
7. Explain effects of environmental factors on a population's health
8. Explain biological and genetic factors that affect a population's health
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political and economic determinants of health to population

health and health inequities

11. Explain how globalization affects global burdens of disease

### 3. APPENDICES

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#### 3. Appendix A: Annual Progress Review (Self-Assessment Report) Form

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Per University policy, all students must be reviewed annually for timely progress towards the completion of their degree. Use this form to initiate a meeting with your advisor to discuss your progress and to set goals for the following year. Complete this form and return it [**as a Word doc attachment-**] to your advisor and program coordinator before your appointment. Your advisor will write a letter to summarize your meeting. A copy of the letter must be cc-ed MPH director (Matt Simcik) and the major coordinator to be added to your file.

Student's Name:	Id #:
Advisor:	Degree sought:
Concentration rack:	Credits completed:
Entry term and year:	Term #:
Cum gpa:	Anticipated graduation term/yr:
<b>MPH: Study plan:</b> <a href="http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA_StudyPlan.pdf/">http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA_StudyPlan.pdf/</a>	<b>Applied Practice Experience (MPH):</b> <a href="http://www.sph.umn.edu/current/fe/">http://www.sph.umn.edu/current/fe/</a>
<b>PhD Timeline and Forms:</b> <a href="http://www.grad.umn.edu/students/doctoral/index.html">http://www.grad.umn.edu/students/doctoral/index.html</a>	<b>MS Timeline and forms:</b> <a href="http://www.grad.umn.edu/students/masters/index.html">http://www.grad.umn.edu/students/masters/index.html</a>

Answer questions below-use as many lines as needed and or attached additional pages if needed:

1. List below accomplishments this year:
2. List missed accomplishments this year:
3. Map timeline and goals for next year:
4. Degree program plan or study plan submitted? If not, when?
- 5.
6. For PhD students: When do you plan to begin and finish taking your thesis credits (PubH 8888).
7. **Comments to help your advisor give you feedback:**

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## 4. Appendix B: Annual Progress Review (Self-Assessment Report) Form

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### . Environmental Health MPH Degree Competency Statements

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The EH MPH major is central to understanding the interplay of biological, chemical, physical and behavioral environmental factors on human health or ecological balances. In addition to obtaining a broad background in core courses, EnHS students select a focus area based on their academic goals. EnHS graduate educational programs are organized into three core areas that reflect the inter- and multi-disciplinary scientific fields of environmental health as an essential component of the wider field of public health. Focus areas in Health Effects, Environmental Exposures, and Environmental Health Policy emphasize training in the assessment, management, and communication of environmental health hazards with a focus on preventing the occurrence and spread of disease. The core competencies promulgated by ASPH and APHA were considered in the development of our curriculum. Course grid available as a separate attachment.

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### Appendix C. \*Options for Integrative Learning Experience- MPH (PubH 7194) Plan B & Plan C

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## Appendix C: Career Services Resources

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[HTTP://WWW.SPH.UMN.EDU/CAREERS/](http://www.sph.umn.edu/careers/)

It is the mission of Career Services at the University of Minnesota, School of Public Health, to foster the career development of our students and alumni by providing them with the tools and resources necessary to successfully manage their careers, beginning when they first enroll in the SPH and continuing as they become established public health professionals.

### Serving -STUDENTS & ALUMNI:

- Improve resume and cover letter writing skills.
- Hone interviewing and negotiating strategies.
- Seek graduate assistantships or internships, while enrolled in the SPH.
- Explore career possibilities.
- Begin or carry on their job search.
- Explore salary statistics for public health program areas.

### Offers- JOB SEARCH RESOURCES:

- Job Postings, specifically for public health students.
- GoldPASS, the University-wide job postings system.

- Links to other internship and job search websites

**Assists with- CAREER DEVELOPMENT RESOURCES:**

- Online Career-Related PowerPoint Workshops
- U of MN Libraries - Careers & Jobs Development Resources
- InterviewStream for students to practice their interviewing skills.
- A month-by-month Career Calendar
- Tip Sheets to help you with your job search.
- A well-established Mentor Program

## Appendix D

### Graduation CHECKLIST- All degrees

You **must** complete the following steps or your degree clearance may be delayed by one month or more.

- MPH: Turn in your *Study Plan* if you have not already done so. This form is due the semester before you plan to graduate but if you missed this deadline you must turn in this form immediately. This form is available-use attached or at [http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA\\_StudyPlan.pdf](http://sph.umn.edu/site/docs/degrees-programs/mha/MPH-MHA_StudyPlan.pdf)

MS/PhD: Complete and submit your degree plan:  
<http://policy.umn.edu/forms/otr/otr198.pdf>

- MPH ONLY:** Turn in the *Application for Degree Form* by the first University business day of the month you plan to graduate. This form is available at <http://policy.umn.edu/Forms/otr/otr177.pdf>

**MS/PhD:** Follow Steps here: <http://www.grad.umn.edu/current-students/gssp>

- Check your transcript to make sure your **Applied Practice Experience** grade has been submitted. A grade of “K” is not a final grade so if you see this grade you should contact your instructor to find out why your final grade has not been submitted

- After your oral defense, you should check your transcript again to make sure your project advisor has submitted your final grade. A grade of “K” is not a final grade so if you see this grade you should contact your project advisor to find out why your final grade has not been submitted

- Complete the *Graduate Follow-Up Survey* at <https://idp2.shib.umn.edu/idp/umn/login> ----

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- Provide your Major Coordinator with an electronic copy of your final project by e-mail. This paper is due by noon on the last business day of the month you plan to graduate.

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### Reminders

- Attend Grad Fair where you can order your Cap and Gown and meet with Financial Aid – March XX, Coffman Union (unless you have walked already.)
- Register for Commencement - see SPH website (unless you have walked already).
- Clean out locker
- Update your contact info. so we can keep in touch
- Make an appointment with Career Services for a final review of your resume, interview practice or other job search guidance, Call 612-626-3500.
- Join the SPH Alumni Society
- Lifetime University e-mail. Keep and use your U of MN email address. You can use your U of M e-mail address for personal or professional purposes even after you graduate. Imagine never having to subscribe to an e-mail  
Service includes full access to three features:  
University Portal <https://www.myu.umn.edu>

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## EnHS Division Awards

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Each spring the students vote for recipients of two awards. The Herbert M. Bosch Award honors the student who "best exemplifies the traits of kindness and regard for the welfare of humanity". The Faculty Excellence Award recognizes a professor of Environmental Health for excellence of graduate instruction and progress in the professional development of the graduate students in the past academic year.

### Herbert M. Bosch Award

This award is presented to the student who best represents the traits of scholarship, honesty, integrity of character, humaneness and concern for community, to name a few. The class of 1963 felt that the inscription on the plaque, "...who best exemplifies the traits of kindness and regard for the welfare of humanity..." is the most important single guide to be followed by the class in selecting one of their fellow students for this award. The Environmental Health class of 1963 created the Herbert M. Bosch Award as a living memorial to the man who had done much to further the cause of humanity.

To be eligible for consideration for this award, each candidate must be a full-time student in the Environmental Health program (minimum six credits all MS, PhD and MPH students). The class of 1963 established that any subsequent class may modify these criteria after discussion and consultation with the program director and a two-thirds majority vote by the class. It was hoped that any modification would strengthen the integrity of the award. The class of 1964 established the following procedures for nominating a candidate:

1. The nominating ballot will list those persons who are Environmental Health students this will also be the list of the eligible voters; At least 50% of the eligible voters need to vote for the ballot to continue.
2. Each eligible voter may select up to two names for the nomination;
3. The three names that occur most frequently will constitute the final nominating ballot;
4. The eligible voters will then vote for one candidate among the three nominated.

## Faculty Excellence Award

This award is presented by the graduating class to a professor of Environmental Health for excellence of graduate instruction and progress in the professional development of the graduate students in the past academic year. It was initiated by the Environmental Health Class of 1966. The selection of one of the candidates for this award in a previous year shall not prejudice the selection either for or against the candidate. Each year's selection shall be on the merit of the candidate in the previous twelve months and shall be independent of selections in previous years. It shall be the duty of the class officers and of the faculty to inform the graduate students of the terms of this award early in fall semester and at least one more time before the date of balloting.

All students registered for a graduate program with a major in the Division of Environmental Health Sciences are eligible to vote. It shall be the duty of the class officers to encourage all those eligible to vote to participate in this selection. The past two votes were conducted successfully via survey monkey.

## Delta Omega - Honorary Society in Public Health

Delta Omega is the national honorary society for graduate studies in public health. (It is equivalent to Phi Beta Kappa for undergraduate studies in letters or Alpha Omega Alpha in medicine.) The society was founded in 1924, when only a few graduate schools of public health existed in the United States, and now has chapters at the majority of 25 or more such schools providing advanced public health degrees in 1990.

The Constitution and By-Laws were adopted in 1927, and amended occasionally since then. Policies are made by the National Council, composed of elected officers and representatives of each chapter, meeting annually. The annual meeting includes a scientific, as well as a business, program. It is usually held in conjunction with the Annual Meeting of the American Public Health Association.

The principle Delta Omega activities are conducted by each chapter. The chapter elects new members each year from three groups: (1) students who are candidates for a graduate degree in public health, (2) faculty members at the school of public health, and (3) alumni actively engaged in public health work. Election from all three groups is based on outstanding performance - scholarship in students, teaching and research in faculty members, and community service in alumni.

Election to membership in Delta Omega is intended not only to recognize merit, but also to encourage further excellence in and devotion to public health work.

More on EnHS Awards can be found here: [http://enhs.umn.edu/current/award\\_descriptions.htm](http://enhs.umn.edu/current/award_descriptions.htm)

## EnHS MPH Competencies

1. Recognize hazards in various environments
2. Describe factors that influence the presence and magnitude of hazards
3. Identify pathways of exposure to environmental hazards
4. Integrate exposure and health effects knowledge to investigate health risk and inequity

Propose risk management strategies, such as education, policy, and technology, directed toward environmental health stakeholders, including government, industry, and community groups

