



UNIVERSITY OF NEBRASKA MEDICAL CENTER™  
**COLLEGE OF PUBLIC HEALTH**

# **College of Public Health Student Handbook 2016-2017**

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# **College of Public Health**

## **General Information**

# COLLEGE OF PUBLIC HEALTH DIRECTORY

**College of Public Health Dean's Office  
University of Nebraska Medical Center  
984355 Nebraska Medical Center  
Omaha, NE 68198-4355  
Phone: 402-559-4960  
FAX: 402-559-4961**

|   | <b><u>Location</u></b>     | <b><u>Phone</u></b> |
|---|----------------------------|---------------------|
| Ali Khan, MD MPH - Dean   | MCPH 2 <sup>nd</sup> Floor | 559-4960            |
| Jane Meza, PhD – Senior Associate Dean                                      | MCPH 3 <sup>rd</sup> Floor | 559-6825            |
| Kendra Schmid, PhD<br>Interim Associate Dean for Academic & Student Affairs | MCPH 2 <sup>nd</sup> Floor | 552-6583            |
| Mohammad Siahpush, PhD – Associate Dean for Research                        | MCPH 2 <sup>nd</sup> Floor | 559-3437            |
| Kendra Schmid, PhD – Director, Master's Programs                            | MCPH 2 <sup>nd</sup> Floor | 552-6583            |
| Analisa McMillan, MEd – Director, Distance Learning                         | MCPH 2 <sup>nd</sup> Floor | 559-1061            |
| Jessica Tschirren, MPA – Director, Student Affairs                          | MCPH 2 <sup>nd</sup> Floor | 552-9870            |
| Brenda Nickol, MPH – Director, Career Services                              | MCPH 2 <sup>nd</sup> Floor | 522-7226            |
| Tymaree Sing, BS – Coordinator, Office of Educational Services              | MCPH 2 <sup>nd</sup> Floor | 552-9869            |
| Tiffany Brunt, BS – Admissions and Recruitment Specialist                   | MCPH 2 <sup>nd</sup> Floor | 552-9867            |
| Keith Hansen, MBA – Administrator, Finance and HR                           | MCPH 2 <sup>nd</sup> Floor | 559-4473            |

| <b><u>Department</u></b>  | <b><u>Department Chair</u></b> | <b><u>Location</u></b>     | <b><u>Phone</u></b> |
|---|--------------------------------|----------------------------|---------------------|
| Biostatistics   | Jane Meza, PhD                 | MCPH 3 <sup>rd</sup> Floor | 559-6825            |
| Epidemiology  | Debra Levy, PhD                | MCPH 2 <sup>nd</sup> Floor | 559-4248            |
| Environmental, Agricultural and<br>Occupational Health Sciences | Eleanor Rogan, PhD             | MCPH 3 <sup>rd</sup> Floor | 559-8924            |
| Health Promotion, Social and<br>Behavioral Health Sciences      | Paul Estabrooks, PhD           | MCPH 2 <sup>nd</sup> Floor | 559-4325            |
| Health Services Research and<br>Administration                  | Li-Wu Chen, PhD                | MCPH 1 <sup>st</sup> Floor | 559-5260            |

| <b><u>Graduate Programs</u></b>                              | <b><u>Graduate Program Chair</u></b> | <b><u>Location</u></b>     | <b><u>Phone</u></b> |
|--|--------------------------------------|----------------------------|---------------------|
| Biostatistics  | Gleb Haynatzki, PhD                  | MCPH 3 <sup>rd</sup> Floor | 559-4112            |
| Environmental Health, Occupational Health,<br>and Toxicology | Chandran Achutan, PhD                | MCPH 3 <sup>rd</sup> Floor | 559-8599            |
| Epidemiology   | Monirul Islam, MD                    | MCPH 3 <sup>rd</sup> Floor | 559-4248            |
| Health Services Research, Administration<br>and Policy       | Fernando Wilson, PhD                 | MCPH 1 <sup>st</sup> Floor | 552-6948            |
| Health Promotion and Disease Prevention<br>Research          | Ghada Soliman, PhD                   | MCPH 2 <sup>nd</sup> Floor | 559-5157            |

College of Public Health (COPH) OFFICE OF EDUCATIONAL SERVICES  
MCPH 2050  
984359 Nebraska Medical Center  
Omaha NE. 68198-4359  
1-402-552-9867

University of Nebraska Medical Center (UNMC) STUDENT SERVICES  
Student Life Center  
1-800-626-8431

# MISSION & VALUES

## **Mission**

The Mission of the College of Public Health is to promote optimal health and well-being through robust education, research, and service in collaboration with communities in Nebraska, across the country, and around the world.

## **Vision**

The UNMC College of Public Health will be a place of innovation, growth and excellence, to foster sustainably healthy populations and environments.

## **Values**

*As members of the College of Public Health, we:*

Honor intellectually and scientifically innovative scholarship  
Promote collaboration across disciplines and across communities  
Share readily our knowledge and skills  
Encourage life-long and experiential learning in teaching, practice, and research  
Recognize sustainability as an essential element of sound public health practice  
Embrace diversity in ideas, disciplines, convictions and people  
Champion equity and social justice  
Commit to integrity and ethical behaviors



# STUDENT GOVERNANCE

The Copenhague student body is represented on one Copenhague Governing Faculty standing committees: the Curriculum Committee. One MPH student member and one MS/PhD student hold a seat on each committee. The students are representatives of the student body interests, perspectives, and concerns. Eligibility for election is determined by the successful completion of at least two (6 credit hours) courses. Nominations are secured by self-nominating, or by peer and faculty nomination. The Director of Student Affairs administers the electronic nomination and election. The student members retain full voting privileges except in matters pertaining to individual student issues. The student members are excluded from participation in discussions regarding student disciplinary actions or other matters pertaining to individual students. Students must be in good standing in the program to be elected and to remain on the committees. The Copenhague student body participates in student governance in the UNMC Student Senate and the College of Public Health Student Association.

The Copenhague student body can appointed advisory members on the following Copenhague non-standing committees: the Evaluation Committee

## **COPENHAGUE STUDENT GOVERNANCE COMMITTEES**

### **Curriculum Committee – meets each month**

#### **I. Charge**

The Curriculum Committee was established as a Standing Committee by vote of the governing faculty of the College of Public Health at the University of Nebraska Medical Center through the College of Public Health Bylaws, which was ratified July 2010.

- A. Formal Charge. From the College of Public Health at the University of Nebraska Medical Center Bylaws Section 1.D.1c.ii. The Committee's charge includes:
  - i. Recommend to the College of Public Health Faculty policies and plans regarding student curriculum, in consultation with the appropriate department(s).
  - ii. Develop and implement a system for curriculum evaluation.
  - iii. Recommend curriculum changes.
  - iv. Develop and recommend policies relating to the continuing education programs of the College of Public Health.
  - v. Review and approve all newly-developed courses and any newly-developed areas of specialization at the master and doctoral level.
- B. Curriculum Committee Initiated Charge. As decided upon by vote of the Curriculum Committee Membership, the Committee will additionally:
  - i. Provide guidance to students requesting evaluation and approval of their remediation plans in order to regain good academic standing.
  - ii. Evaluation and judgment of student related academic issues, to include, but not be limited to transferring credit, exceptions to policy, dismissals, etc.
  - iii. Dutifully accomplish any additional responsibilities as outlined in the College of Public Health Student Handbook.

### **Current Committee Membership**

| <b>Voting Members</b>    | <b>Representation</b>                                 |
|--------------------------|---|
| Chandran Achutan         | Environmental, Agricultural and Occupational Health   |
| Elizabeth Lyden          | Biostatistics   |
| Aaron Yoder              | Environmental, Agricultural and Occupational Health   |
| Monirul Islam            | Epidemiology  |
| Fabio Alimeda            | Health Promotion, Social and Behavioral Health        |
| Jungyoon Kim             | Health Services Research and Administration           |
| Quin Zijian              | MPH Student   |
| Eric Meyer               | PhD Student   |
| <b>Nonvoting Members</b> | <b>Representation</b>                                 |
| Aleta Gaertner           | Administrative Program Coordinator                    |
| Kendra Schmid            | Interim Associate Dean for Academic & Student Affairs |
| Tymaree Sing             | Coordinator, Office of Educational Services           |
| Jessica Tschirren        | Director, Student Affairs                             |

### **College of Public Health Student Association**

#### **Goal Statement**

The purpose of UNMC's College of Public Health Student Association is to maintain a body representative of CPH students to the college leadership and external entities; advance the academic and social needs of CPH students; provide and sustain vehicles for communication between students, faculty, administration, alumni, and the community-at-large; create and promote opportunities for community involvement; disseminate educational and professional development resources; support a positive educational experience; and stimulate interest in and advance the profession of public health.

#### **Officers**

President: Kushal Karan

Vice-President: Kandy Do

Treasurer: Jessica Semin

Secretary: Shelby Braun

### **UNMC Student Senate**

***Student Senate Representatives: Kushal Karan, Kandy Do, Tatiana Tchouankam***

The Medical Center Student Senate is the campus-wide student government body for the University of Nebraska Medical Center. The purpose of the MCSS is to provide student input and leadership on issues related to campus life and student development. MCSS also sponsors philanthropic events and social activities.

Senate members serve on a variety of UNMC committees and meet regularly with the Chancellor and other senior administrators. The President of the MCSS also serves as a nonvoting member of the University of Nebraska Board of Regents.

MCSS business meetings are held on the first Wednesday of each month from September through May and are open to all students. Elections for the Graduate Studies senate seats and MCSS officers (President and Vice President) are held each November.

The MCSS administrative office is located in the Student Life Center, Room 3015. Students with questions about MCSS are encouraged to contact David Carver, PhD at 559-7276.

# SCHOLARSHIPS & AWARDS

The following competitive scholarships are potentially available to CPH students who are currently enrolled and to new applicants. Students should regularly check the CPH Scholarships website for up-to-date list of available scholarships and awards.

- UNMC Scholarship Opportunities. Scholarships are available to degree-seeking students enrolled in one of the graduate degrees offered at UNMC; preference is given to PhD students. For more information about UNMC scholarships, contact the Graduate Studies Office at (402) 559-6531.

# DISTANCE EDUCATION

The College of Public Health provides education to individuals who seek formal training in public health or envision a career in public health. The College recognizes that offering distance education is important in order to make its programs accessible to students.

The College of Public Health offers distance education in several modalities for the following programs and courses:

**Certificate of Public Health Courses** – The CPH and CEP certificates can be completed both online and on campus. For the online option, the core courses are entirely online and asynchronous (no scheduled time for live meetings). For the on-campus option, classes are offered in synchronous (live class time) delivery.

**Online MPH Concentration Courses** – The MPH concentrations in biostatistics, environmental and occupational health and public health practice are offered online.

**Doctoral Courses** – Students should consult their individual departments.

**Elective Courses** – The College of Public Health does not guarantee offering elective courses via a distance education modality. Students participating in the MPH Program via distance are advised to discuss elective options with their academic advisors.

## Distance Delivery Modalities

### 1. IP (Internet Protocol) Videoconferencing

This modality requires distance students to meet in an IP video classroom approved by UNMC. These IP videos rooms are typically located far from the UNMC campus. This modality is a real time video/audio class or meeting between two or more users or between two or more locations. Videoconferencing for educational applications (classes) are full motion video and complete audio in real time. Video and audio are transmitted through the network with little loss of quality. The University of Nebraska distance learning system connects the four main campuses and several University facilities throughout the state. Primary locations are the University of Nebraska-Lincoln, the University Nebraska at Kearney, and the Panhandle Research and Extension Center in Scottsbluff.

### 2. Live Video Streaming

This modality allows students to watch and listen to classroom proceedings from any computer with a reliable internet connection. Students may communicate with the class by calling a phone bridge line. Students are not required to stay on the phone for the duration of the class; phone is used only when the student needs to speak. The live video stream ends when the class concludes.

### 3. Archived Video Streaming and Echo360

Classroom lectures may be recorded in two ways:

(1) Archived streaming video is made available within 24 hours and is uploaded by the instructor to a folder in the Blackboard course. The archived recording consists of all the audio captured during the classroom proceeding as well as the computer screen. If the computer was not active during the classroom proceedings, then the classroom (presenter and possibly audience) will be captured.

(2) Echo360 technology records the classroom session together with the Powerpoint slides or any materials projected on the screen through the classroom computer system. Echo360 content is automatically uploaded to the Blackboard course after the class ends. The recording can be located under “Lecture Recordings” in your Blackboard course. Students can easily navigate the recordings of the class using thumbnails of particular time points in the lecture.

NOTE: Classroom lecture recordings are meant to enhance the student's learning and for review purposes only. Unless specifically stated otherwise by your instructor, it is not meant to substitute for attendance in class.

#### **4. Blackboard**

Blackboard is a web-based course management system designed to allow students and faculty to participate in classes delivered online or use online materials and activities to complement face-to-face teaching. Blackboard enables instructors to provide students with course materials, discussion boards, course announcements, online quizzes, an academic resource center, and more. The degree to which Blackboard is used for a course varies. However, in order to achieve consistency in look and orientation throughout all courses, the College of Public Health uses a standard Blackboard layout for most courses.

# DEFINITION OF COLLEGE OF PUBLIC HEALTH STUDENTS AND GRADUATE COLLEGE STUDENTS

The College of Public Health includes two categories of students: **professional** (Master of Public Health and Certificate programs) and **graduate** (MS and PhD programs). The College administers the professional programs, and the Graduate College administers the graduate programs. Many of the policies are similar, but there are some differences. Each College has official oversight of its particular programs.

## College of Public Health (COPH) Education Administration

The College of Public Health has a standing Curriculum Committee composed of faculty representatives from all five departments, two student representatives, and staff (see description in student governance section). A chair is elected by the governing faculty and serves a three-year term. The Committee is responsible for new course review, student requests for exceptions and remediation, new degree or certificate program review, competency review, and other academic matters. Prior to 2009, the MPH Graduate Program Committee carried out those functions. The Student Recruitment and Admissions Committee reviews MPH and Certificate applications and plans recruitment activities.

## Graduate Studies (GRAD) Education Administration

The University of Nebraska system has one Graduate College with administrative units located on each of the four campuses (the University of Nebraska – Lincoln, the University of Nebraska at Omaha, the University of Nebraska Medical Center, and the University of Nebraska at Kearney). The Office of Graduate Studies on the UNMC campus oversees graduate education on the campus, with policies and procedures aligned with other units and the Graduate College. Each unit has a Dean for Graduate Studies who, in conjunction with the Executive Graduate Council (system) and the UNMC Graduate Council elected from the UNMC Graduate Faculty, is responsible for Graduate College activities at UNMC. In 2003, the University of Nebraska Board of Regents voted to designate all regular faculty as graduate faculty and disband the former two-tiered application process.

Each graduate program at UNMC has a Graduate Committee of three or more members formally appointed by the Dean for Graduate Studies but selected or elected by the program Graduate Faculty. Each department in the College of Public Health has a Graduate Program Committee.

The COPH Doctoral Committee is an umbrella committee composed of each of the Graduate Program Chairs, Associate Dean for Academic Affairs, doctoral students, Assistant Dean for Student Affairs, and a staff assistant. The COPH Doctoral Programs Committee reviews programs of study, oversees competency reviews, sets internal policies, and handles other matters.

**MS and PhD students should reference the UNMC Graduate Bulletin for all academic and administrative policies.**

# **COLLEGE OF PUBLIC HEALTH STUDENT SECTION**

## **Master of Public Health & Certificate Programs**

*MS/PhD Students Should Reference the Graduate Section*

# COPH ACADEMIC CALENDAR

## Academic Calendar 2016-2017

### Fall 2016 Semester

|  |  |
|--|--|
| Fall 2016 Registration Begins                                  | May 1  |
| Inter-Professional Education Orientation                       | August 17                                      |
| Orientation for New Students                                   | August 18 & 19                                 |
| 1 <sup>st</sup> Day of Classes                                 | August 22                                      |
| Last Day to ADD Classes  | August 28                                      |
| Last Day to DROP with 100% Refund                              | August 28                                      |
| Last Day to WITHDRAW Classes                                   | November 11                                    |
| Deadline for filing for December graduation                    | October 1                                      |
| Holidays – No Class<br>Labor Day<br>Fall Break<br>Thanksgiving | September 5<br>October 17-18<br>November 23-26 |
| Service Learning/Capstone Experience<br>Presentation Day       | To Be Announced                                |
| Last Day of Class  | December 16                                    |
| Commencement   | December 16                                    |

\*\* PhD and MS students should also reference the Graduate Bulletin for dates specific to their requirements



### **Spring 2017 Semester**

|  |                              |
|--|------------------------------|
| Spring 2017 Registration Begins  | November 1                   |
| Orientation for New Students   | To Be Announced              |
| 1 <sup>st</sup> Day of Classes   | January 9                    |
| Last Day to ADD Classes  | January 15                   |
| Last Day to DROP with 100% Refund  | January 15                   |
| Last Day to WITHDRAW Classes   | March 31                     |
| Deadline for filing for May graduation   | February 1                   |
| IPE – Inter-Professional Education Day<br>IPE – Inter-Professional Education Day Year<br>2 Feb. 24, 2017 | February 8<br>February<br>22 |
| Holidays – No Class<br>Martin Luther King Day<br>Spring Break  | January 16<br>March 19-26    |
| Last Day of Class  | May 5                        |
| Fall 2017 Registration Begins  | May 1                        |
| Service Learning/Capstone Experience<br>Presentation Day   | To Be Announced              |
| Commencement   | May 6                        |

\*\* PhD and MS students should also reference the Graduate Bulletin for dates specific to their requirements

### **Summer 2017 Terms**

|  |  |
|--|--|
| Summer 2017 Registration Begins                          | March 15   |
| Eight Week Session                                       | May 15-July 7  |
| First Five Week Session                                  | June 5-July 7  |
| Second Five Week Session                                 | July 10-August 11  |
| Last Day to ADD Classes                                  | 8 week session –May 21<br>1 <sup>st</sup> 5-week session –June 11<br>2 <sup>nd</sup> 5-week session –July 16   |
| Last Day to DROP with 100% Refund                        | 8 week session –May 21<br>1st 5-week session –June 11<br>2nd 5-week session –July 16                           |
| Last Day to WITHDRAW Classes                             | 8 week session –June 11<br>1 <sup>st</sup> 5-week session –June 28<br>2 <sup>nd</sup> 5-week session –August 2 |
| Deadline for filing for August graduation                | June 1   |
| Holidays – No Class<br>Memorial Day<br>Independence Day  | May 29<br>July 4   |
| Service Learning/Capstone Experience<br>Presentation Day | To Be Announced  |
| Commencement (no ceremony)                               | August 18  |

\*\* PhD and MS students should also reference the Graduate Bulletin for dates specific to their requirements

# UNMC CAMPUS SERVICES & ACTIVITIES

**Please refer to the UNMC Student Handbook for the following services:**

**[http://www.unmc.edu/student-services/\\_documents/handbook.pdf](http://www.unmc.edu/student-services/_documents/handbook.pdf)**

- Alumni Relations
- Bookstore
- Center for Continuing Education
- Center for Healthy Living
- Child Development Center
- Counseling and Student Development Center
  - Academic Success Programs
  - Services for Students with Disabilities
  - Ombudsperson for Students
- Food Services
- Housing
  - Rental Property at UNMC
  - Housing Discrimination Hotline
- ID Badges
- Information Technology Services (ITS)
- ITS Video Services
- Insurance
- International Health and Medical Education
- Library
- McGoogan library of Medicine Student Services Policy
- Lockers
- Lounges
- Notary Public Service
- Parking
- Printing Services
- Public Relations, Department of
- Security
- Student Health Services
- Student Services, Division of
- Academic Records
- Office of Student Recruitment and Engagement
- Student Loan Accounting
- Financial Aid
- Student Financial Services
- Student Organizations for University of Nebraska Medical Center 2014-2015
- New Student Organizations

# ACADEMIC POLICIES & UNIVERSITY REQUIREMENTS

Please refer to the UNMC Student Handbook

[http://www.unmc.edu/student-services/\\_documents/handbook.pdf](http://www.unmc.edu/student-services/_documents/handbook.pdf) or Click on the policy below to go directly to the Wiki for the following policies:

## **Registration/Enrollment**

**Administrative Withdrawal**

**Background Check**

**Drop Add**

**Holds and Registration Blocks**

**Immunization**

**Leave of Absence**

**Maternity / Paternity Leave**

**Non-Enrolled Students**

**Residency**

**Students Called into Military Services**

**Transcripts**

## **Academic and Professional Conduct**

**Code of Conduct**

**Drug and Alcohol Standards of Conduct**

**Non-Discrimination and Harassment Policy**

**Sexual Misconduct Procedures**

**Student Sexual Misconduct Procedures**

**Substance Use Disorders**

**Financial Aid/Tuition**

**Delinquent Tuition Fee**

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**Insufficient Funds**

**Satisfactory Academic Progress**

**Social Security & Medicare Tax Exemption**

**Tuition Refund Schedule**

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**Voter Registration**

**Miscellaneous**

**Banning Inducements For Securing Enrollments Of Service Members**

**Blood and Body Fluid Exposure Procedure**

**Family Educational Rights and Protections Act FERPA**

**Retention of Materials Used in Academic Evaluation**

**Students Infected with Bloodborne Pathogens**

**Tobacco Free Campus**

# PROHIBITION OF SEXUAL HARASSMENT AND SEXUAL VIOLENCE

Title IX of the Education Amendments of 1972 (“Title IX”), 20 U.S.C. §1681 et seq., is a Federal civil rights law that prohibits discrimination on the basis of sex in education programs and activities. All universities receiving any Federal funds must comply with Title IX. Under Title IX, discrimination on the basis of sex can include sexual harassment or sexual violence, such as rape, sexual assault, sexual battery, and sexual coercion. At UNMC Title IX provides protections to students, post docs, residents, fellows, and others participating in academic programs. For further information on procedures related to the prohibition of sexual harassment and sexual violence see the Student Policy Wiki located at <http://www.unmc.edu/media/studentservices/docs/student-sexual-harassment-policy122712.pdf>

## **Reporting Student Sexual Harassment, Sexual Violence or Sexual Assault**

Reporting allegations of rape, domestic violence, dating violence, sexual assault, sexual harassment, and stalking enables the University to promptly provide support to the impacted student(s), and to take appropriate action to prevent a recurrence of such sexual misconduct and protect the campus community. Confidentiality will be respected to the greatest degree possible. Any student who believes she or he may be the victim of sexual misconduct is encouraged to report to one or more of the following resources:

**Local Domestic Violence, Sexual Assault Advocacy Agency:** See information below

**Campus Police (or Security):** See information below

**UNMC Title IX Coordinator:** Carmen Sirizzotti 402.559.2710

**Retaliation against the student making the report, whether by students or University employees, will not be tolerated.**

Since we have various locations, each location has a Local Agency and Security number:

### **Omaha Campus**

**Agency: Women’s Center for Advancement**

24/7 Crisis Hotline: 402.345.7273 - Español Hotline: 402.672.7118

**Campus Security** 402.599-5111

### **Kearney Campus:**

**Agency: S.A.F.E. Center** 308.237.2599

**Campus Security** 308.627.4811

### **Lincoln Campus:**

**Agency: Voices of Hope**

Crisis Line: 402.475.7273

Non-Emergency: 402.476.2110

**Campus Security** Dial 2 for Blue: 402.472.2222

**Norfolk Campus:**

**Agency: Bright Horizons**

**Hotline/Crisis: 402.379.3798**

**Campus Security 402.841.5163**

**Scottsbluff Campus**

**Agency: The Doves Program**

**308.436.HELP(4357) 877.215.0167(Español)**

**Police Department 308-632.7176 or 911**

# GENERAL PROCEDURES FOR STUDENT DISCIPLINARY ACTION

In accordance with Section 5.4 of the Bylaws of the Board of Regents and in order to insure the protection of students' rights, the University of Nebraska Medical Center has established general procedures that must be followed if any disciplinary action is proposed against students. Students will be informed in writing by the Associate Dean for Academic Affairs of the specific charges, the supporting evidence, and the proposed disciplinary action. The Associate Dean for Academic Affairs will also inform students of their right to appeal. The UNMC "Procedural Rules Relating to Student Discipline" may be found in the UNMC Student Handbook.

**[http://www.unmc.edu/student-services/\\_documents/handbook.pdf](http://www.unmc.edu/student-services/_documents/handbook.pdf)**



# ACADEMIC INTEGRITY AND PROFESSIONAL CONDUCT

The University of Nebraska Medical Center has established a policy on academic integrity and professional conduct. This policy may be found in the UNMC Student Handbook. All MPH/Certificate students are expected to adhere scrupulously to this policy. Cheating, academic misconduct, fabrication, and plagiarism are viewed as serious matters and will lead to disciplinary action as described in the UNMC Student Handbook under Procedural Rules Relating to Student Discipline. Additional materials related to Responsible Conduct in Research can be found in the UNMC Student Handbook.  
**[http://www.unmc.edu/student-services/\\_documents/handbook.pdf](http://www.unmc.edu/student-services/_documents/handbook.pdf)**

# GOOD ACADEMIC STANDING

To maintain good academic standing, College of Public Health students are required to maintain a grade point average (GPA) of at least a B (3.00) in their programs of study.

## **MPH Students**

Grades for all required MPH core courses must be a B- (2.67) or above. A grade of C (2.00) may be accepted for no more than one course (provided it is not a core course); receipt of two grades of C or any grade below C (2.00) is not acceptable for MPH credit and may result in dismissal from the program.

## **Certificate Students**

Receipt of more than two grades of C (2.00) and any grade below C (2.00) is not acceptable and may result in dismissal from the program.

## **Remediation**

Any MPH or Certificate student not in good academic standing for reasons cited above, may not continue his/her program of study without the permission of his/her academic advisor, the CoPH Curriculum Committee, and the CoPH Associate Dean for Academic Affairs. In order to secure this permission, the student, in conjunction with his/her academic advisor, must submit a plan of remediation for approval to the Curriculum Committee (see Remediation Plan Document below for more details). The Curriculum Committee will review the student's status and plan of remediation and forward a recommendation to the Associate Dean for Academic Affairs who after approval of the plan files it with the Office of Educational Services. To continue in his/her program, the student must successfully complete his/her approved remediation plan and return to good academic standing within the subsequent twelve (12) months.

**Doctoral and MS students:** please refer to the Graduate Bulletin (<http://www.unmc.edu/gradstudies/current/index.html>).

## Instructions for Developing a Plan of Remediation for Academic Standing MPH Students:

The following steps outline what must take place to address a situation prompting academic probation:

1. The student is placed on academic probation by the College of Public Health Associate Dean for Academic and Student Affairs.
2. The Office of Educational Services notifies the student that special permission is required for the student to continue his/her program of study.
3. The Office of Educational Services notifies the student in writing, with a copy to the academic advisor, that he/she must develop a remediation plan, in conjunction with his/her academic advisor, which addresses:
  - a. how the student plans to master the essential content provided by the course(s) in which a low grade was received; and
  - b. how the student plans to avoid receiving any grade less than B (3.00) in the future.
4. Along with the notification referenced in step 3 above, the Office of Educational Services informs the student and the academic advisor of the due date for the plan of remediation.

Written remediation plans are due at least two calendar weeks prior to the next regularly scheduled Curriculum Committee meeting.

5. It is the student's responsibility to contact his/her academic advisor about developing the plan of remediation. The remediation plan may need to include retaking the same course if it was a required core course.
6. The student and his/her academic advisor confer to develop a written remediation plan, which the academic advisor sends, along with his/her recommendation regarding approval, to the Director of Master's Programs and the Office of Educational Services.
7. Although the plan may be forwarded by e-mail in order to meet deadlines, a hard copy signed and dated by the student and the academic advisor must be submitted. The academic advisor provides a copy of the plan to the student and keeps one for his/her advising records.
8. The Director of Master's Programs places the remediation plan on the agenda for review/approval at the next regularly scheduled Curriculum Committee meeting.
9. If the plan is approved by the Curriculum Committee, the Director of Master's Programs forwards a summary of the plan, with Curriculum Committee recommendation for approval, to the Office of Educational Services. If the plan is not approved by the Curriculum Committee, the plan is returned to the student and academic advisor with comments for revision. When the plan is approved by the Associate Dean for Academic and Student Affairs, the student and Director of Master's Programs are notified. The Director of Master's Programs will notify the academic advisor. If not approved, the plan will be returned with comment to the student and academic advisor with comments for revision.
10. If the student has not produced a written plan of remediation in consultation with his/her academic advisor by the due date specified in the written notice from the Office of Educational Services (step 4 above), the advisor informs the Office of Educational Services, which notifies the student in writing that he/she must produce same for review a minimum of 2 weeks prior to the next regularly scheduled Curriculum Committee meeting (date given), or they will be considered delinquent in the matter. If no plan of remediation is received in the allotted time, a memo will go to the Associate Dean for Academic Affairs, indicating that a plan of remediation has not been received. Action will follow from that office, which typically involves a block on registration for future terms and a hold on records, including transcripts, or graduation until the matter is resolved.

# ACADEMIC AND GRADE APPEALS

## Appeals Process

Under the provisions of the Bylaws of the Board of Regents, students may appeal grades or other evaluations of their academic progress that they believe to have been prejudiced or capricious. In those cases in which informal attempts fail to resolve the problem, appeals or complaints must be made in writing to the appropriate individual or group as described below. All participants should act as expeditiously as possible to resolve the matter.

In cases of appeals concerning matters other than grades, the CPH Curriculum Committee will serve as the Appeals Committee. For purposes of considering appeal of grades and other course evaluations, the CPH Curriculum Committee will reconstitute itself as a Faculty-Student Appeals Committee. It will be augmented by an additional student to be recommended by the CPH Student Association. In the absence of a functioning Student Association, the additional student representative would be selected by the Dean of the College of Public Health.

In these deliberations, both student members of the Curriculum Committee will be voting members of the CPH Faculty-Student Appeals Committee. The CPH Dean will not be present during deliberations of the Faculty-Student Appeals Committee; a Committee member other than the Dean will act as chair. Any member of the Appeals Committee who has a conflict of interest in the case (e.g., same department or program as one of the parties, on the supervisory committee) should be replaced through *ad hoc* appointment(s) made by the CPH Dean.

## Grade Appeals

Students who believe that evaluation of their academic progress in a course has been prejudiced or capricious may appeal that grade or evaluation as follows:

1. Initially, an attempt must be made to resolve the matter through discussion with the instructor of the course for which the grade was received.
2. If the matter is not resolved, the appeal is submitted in writing to the chair of the department in which the course was taken.
3. If the matter is still not resolved, the appeal is submitted in writing to the Faculty-Student Appeals Committee within two weeks following reporting or posting of the grade. This committee may change a student's evaluation if there is sufficient evidence that the evaluation of a student by a faculty member has been improper. When a student takes a course in a department that is administratively based on another campus, the student must follow the grade appeals procedure for that campus. In cases involving dual-listed courses, appeals should be made through procedures of the academic unit that granted admission to the course.
4. The Faculty-Student Appeals Committee will be the final authority in resolution of grade appeals, with the following exception. The student or the faculty member issuing the grade may within ten days submit an appeal in writing to the Dean of the College of Public Health setting forth his or her reasons for believing he or she was not accorded a fair hearing. The Dean will review the record and facts of the case and may return the matter to the Committee for reconsideration. The decision of the Dean as to whether the case should be reopened will be final.

### **Appeal of Matters Other Than Grades**

MPH and Certificate program students should use the following procedure for appeals concerning general academic matters, other than grades or other course evaluations (e.g., constitution of programs, suspension, or dismissal).

1. A student who wishes to appeal or register a complaint regarding an official notification should meet with his/her advisor in an attempt to resolve the conflict.
2. If the matter is not resolved, the appeal or concern may be submitted in writing to the Director of Masters Programs. This written appeal must be presented within thirty days after official notification of an action is received by the student.
3. If the appeal to the Director of Masters Programs is denied, within thirty days of receipt of the denial notice a written appeal may be made to the CPH Curriculum Committee. Normally the CPH Curriculum Committee serves as the final appeal committee. If the Committee is unable to resolve the issue, the matter is sent to the CoPH Dean who makes the final determination.

# PROFESSIONAL STUDENT GRIEVANCE PROCEDURE

## 1. Purpose

To establish a process for resolution of College of Public Health (COPH) professional student grievances against faculty for violations of the UNMC Code of Conduct or other relevant policies, and grievances related to conditions that adversely impact students' ability to successfully complete the professional program. COPH professional programs are defined as MPH and Certificate.

## 2. Scope

Examples of the types of grievances covered by this procedure include, but are not limited to: inappropriate conduct in the workplace (e.g. verbal abuse, threatening behavior, or favoritism); policy interpretation of time-off and excessive work hours; inappropriate delay of student progression toward degree attainment due to student's career interests and choices, reductions in funding or awards, and supervisory/laboratory personnel changes (e.g. departure of supervising faculty). This procedure deals exclusively with College of Public Health professional student grievances against UNMC faculty. Graduate students (MS and PhD) should refer to the Graduate Student Grievance Resolution Procedure found at [http://www.unmc.edu/media/studentservices/docs/Graduate\\_Student\\_Grievance\\_Resolution\\_Procedure.pdf](http://www.unmc.edu/media/studentservices/docs/Graduate_Student_Grievance_Resolution_Procedure.pdf)

If you are unsure if a grievance falls within the scope of this procedure you can receive additional information and guidance from any of the persons listed below:

Dr. Alice Schumaker , Associate Dean for Academic and Student Affairs College of Public Health

( [amschumaker@unmc.edu](mailto:amschumaker@unmc.edu), 402-552-6583)

Dr. Cheryl Thompson, Chief Student Affairs Officer

([cbthompson@unmc.edu](mailto:cbthompson@unmc.edu), 402- 559 -2792)

Dr. David Carver, Student Ombudsman

([dcarver@unmc.edu](mailto:dcarver@unmc.edu), 402- 559 -7276)

If the student requests confidentiality or asks that the complaint not be pursued, the COPH will take all reasonable steps to investigate and respond to the complaint consistent with the request for confidentiality or request not to pursue an investigation. If a student insists that his or her name or other identifiable information not be disclosed to the alleged perpetrator, the COPH Associate Dean for Student Affairs should inform the student that the college's ability to respond may be limited.

Grievances by professional students that may fall outside the scope of this procedure can be handled through other avenues, some of which are listed below:

### Academic decisions

Academic decisions such as awarding of grades, suspension, or dismissal are to be managed through the processes found in the COPH Student Handbook. Students may contact the Associate

Dean for Academic and Student Affairs, Alice Schumaker ([amschumaker@unmc.edu](mailto:amschumaker@unmc.edu), 402-559-6583) for more information and assistance.

#### Sexual harassment

All allegations of sexual harassment for which the student wishes the University to officially acknowledge and investigate, including sexual violence are to be reported to the Title IX Coordinator, Carmen Sirizzotti, ([csirizzotti@unmc.edu](mailto:csirizzotti@unmc.edu), 402- 559- 2710) or the Chief Student Affairs Officer, Dr. Cheryl Thompson ([cbthompson@unmc.edu](mailto:cbthompson@unmc.edu), 402- 559 -2792). Any Student with an issue that falls under Sexual Harassment or Title IX should contact the Title IX coordinator, even if he/she wishes to remain anonymous.

#### Grievances against Staff

Grievances against UNMC or TNMC staff are managed through the relevant policy/procedures by the UNMC Division Director, Employee Relations, Linda M. Cunningham ([lcunning@unmc.edu](mailto:lcunning@unmc.edu), 402- 559 -7394)

#### Research Integrity

Issues regarding research integrity and research misconduct are managed through the relevant policy/procedures by the Research Integrity Officer, Dr. James Turpen, ([jturpen@unmc.edu](mailto:jturpen@unmc.edu), 402- 559 -4388)

#### Violations of Law

Violations of federal, state, or local laws may be managed through the relevant policies and procedures by the Office of Compliance and/or departments having oversight over the applicable law/regulation. UNMC Interim Chief Compliance Officer: Tara Scrogin ([tscrogin@unmc.edu](mailto:tscrogin@unmc.edu)), phone: 402- 559- 6767.

See: <http://www.unmc.edu/academicaffairs/compliance.htm>

#### Campus Security and Safety

Campus security and safety issues are managed by the UNMC Campus Security (Gary Svanda, 402 -559- 4432, [gsvanda@unmc.edu](mailto:gsvanda@unmc.edu)) or the Omaha Police Department.

Students may at any time contact the Student Counseling Center (402-559-7276) for confidential counseling by male/female licensed mental health care providers for any of the aforementioned cases.

### 3. Context and Principles

Students have the right to file a grievance against faculty for violations of the UNMC Code of Conduct or other relevant policies, and grievances related to conditions that adversely impact the student's ability to successfully complete the professional program. Resolutions in situations where the grievance has been upheld may include student reinstatement, student reassignment to another class or lab, or other corrective action(s) for the benefit of the student.

Corrective action against CPH faculty is under the purview of the Dean of the College of Public Health in coordination with the chair (or the Dean's designee in a case where the chair is the involved faculty) of the involved faculty member's primary department.

COPH faculty are defined as all faculty who hold an appointment of more than 50% FTE in the COPH and part-time faculty whose entire academic appointment is in the COPH. If the faculty involved holds 50% or less FTE in the COPH and their primary appointment is in another department, the COPH dean in collaboration with the Dean of the college of the faculty's primary appointment will determine the process. This procedure does not supersede the policies contained in the UNMC Faculty Handbook, and any corrective action will be consistent with those policies. Appropriate corrective action will be taken where the grievance has been upheld by a preponderance of evidence. COPH professional students have the right to file a written complaint to the UNMC Faculty Senate Professional Conduct Committee chair if they are not satisfied with the grievance panel resolution.

Retaliation against student complainants or others involved in the grievance process is strictly prohibited. Incidents of retaliation by faculty members will be referred to the Faculty Senate Professional Conduct Committee for further investigation and disciplinary action.

Students who make any intentionally false accusations and/or misleading complaints against University faculty will be subject to appropriate disciplinary action by the COPH Dean in consultation with the chair of the faculty member's primary department.

The College of Public Health student and faculty names, identifying information, statements, and comments as well as any deliberations, advice, or evidence given in the course of the informal procedure and formal COPH Professional Student Grievance Panel deliberations are confidential. All individuals involved, including members of the Panel, are expected to abide by this duty to maintain confidentiality. Any unauthorized release or carelessness in the handling of this confidential information is considered a breach of this duty to maintain confidentiality and is strictly prohibited.

#### 4. Procedure

##### a. Informal Resolution

At any stage in the informal process the Student Ombudsperson (Dr. David Carver, 402-559-7276, dcarver@unmc.edu) can be consulted as an independent, neutral, informal and confidential consultant. The Ombudsperson can provide additional information and clarification on University policies and proceedings, assistance in facilitating difficult conversations, and guidance in prioritizing options for dealing with the problem. The Ombudsperson will also report ongoing trends in student grievances, while maintaining students' confidentiality, to campus administrators including the Dean of the College of Public Health and the UNMC Chancellor.

In most cases an initial attempt should be made to address the issue through an informal resolution process.

##### b. Course of Action



- i. It is recommended that the first course of action is a discussion between the student and the involved faculty member to resolve the issue.
- ii. If discussion with the involved faculty member is not possible or effective, the student should discuss the issue with the chair of the faculty member's primary department.
- iii. If discussion with the department chair is not possible or effective: the student should discuss the issue with the CPH Director of Masters Programs.

c. Without Proceeding to Formal Complaint

If the issue cannot be resolved informally, and the student wants to summarize the incident without proceeding to a formal complaint, this may be done through one of two mechanisms. However, the CPH Associate Dean for Academic and Student Affairs will inform the student that the recourse will be limited without filing a formal complaint.

- i. Unwritten Summary  
Student vocalizes a summary of the issue with the Student Ombudsperson.  
(Dr. David Carver, dcarver@unmc.edu, 402 -559 -7276)
- ii. Written Documentation  
Student sends written summary to the CPH Associate Dean for Academic and Student Affairs who will keep this documentation in a confidential and secure file.

d. Proceeding to Formal Complaint

If the issue cannot be resolved informally, and the student wants to proceed with an investigation of the incident(s), then the complaint may move to the formal procedure as follows. If the grievance is ongoing or involves a particularly sensitive matter, the grievant is encouraged by the CPH Associate Dean for Student Affairs to submit his/her complaint as soon as possible.

5. Formal Resolution Procedure

a. Filing a Complaint:

The complaint must be submitted electronically to the CPH Dean and the CPH Senior Associate Dean within 60 class days\* after the incident occurred or 60 class days after informal resolution procedures have failed. The complaint should attempt to identify the following: the student grievant; the respondent faculty member or administrator; any other person involved; the incident, including approximate date and time, and whether the incident is ongoing; the policy claimed to have been violated or the limitation imposed on the student's ability to complete his/her degree; and a brief statement of the remedy sought.

*\*Class days" are defined as days when the CPH is open for classes, examinations, or administrative office activities. All references to "days" in this document are considered "class days."*

Every complaint will be acknowledged by email correspondence from the CPH Office of the Dean within 5 class days of the receipt of the complaint. At this stage, the faculty

member involved will be notified by the Senior Associate Dean that a grievance has been filed against him/her, and the nature of the grievance.

The Copenhaguen Senior Associate Dean will be responsible for keeping all documentation pertinent to the formal complaint in a secure and confidential place.

b. Preliminary Resolution Procedure

Within 10 class days of acknowledging the complaint, the Copenhaguen Senior Associate Dean will meet with the student and the involved faculty separately to determine first whether a preliminary resolution can be reached. If a preliminary resolution cannot be achieved, the Senior Associate Dean shall notify both parties that the grievance will be referred to the Copenhaguen Professional Student Grievance Panel. The Senior Associate Dean will inform the faculty member that s/he may prepare a statement in response to the allegations for review by the grievance panel, due within 10 class days. The Copenhaguen Senior Associate Dean may adjust this timeline if there are compelling reasons for delay.

c. Copenhaguen Professional Student Grievance Panel

The Copenhaguen Professional Student Grievance Panel consists of six members (three faculty and three students). The Copenhaguen Dean will select three members of the Copenhaguen Leadership Council who have no conflicts in the case. The Copenhaguen Student Association President will select three Student Association officers who have no conflicts in the case. The panel will be reconstituted for each formal grievance brought forward.

The faculty members will include no more than one member from any one Copenhaguen department. The Copenhaguen Leadership Council will make every effort to avoid perceived or actual conflicts of interests in selecting the panel members by avoiding members that are in the same department, laboratory, and/or have a close relationship with either the student or faculty member involved in the grievance complaint.

The student members will include no more than one member from any one department, all in good academic standing as per college regulations. If there are not qualified student members from each department, the Student Association President appoints panel members from current qualified Copenhaguen professional students.

The Chair of the Faculty Senate Professional Conduct Committee (or designee) will sit on the Panel as an observer without a vote, to prevent unnecessary duplication of investigation if the grievance results in the matter being referred to the Faculty Senate Professional Conduct Committee. This person can also advise the grievance panel about recommended corrective action, if appropriate. The Copenhaguen Senior Associate Dean will also sit on the Panel as an observer without a vote.

d. Copenhaguen Professional Student Grievance Panel Responsibilities

Reviewed Evidence

The panel members will begin their review of the evidence within 30 days of the receipt of the statements by the Copenhaguen Senior Associate Dean. They will review the statements

of both parties and interview the involved parties and any named witnesses, as appropriate. They will review other provided evidence. Panel members may seek advice and evidence from other university officials as necessary to conduct the investigation.

The Panel may, at its discretion, convene a hearing to meet with the involved student and the faculty member. Each individual will be given the opportunity to respond, to provide a statement and/or counter-statement, in order to provide additional information as warranted. The meeting will not be open to the public. The involved parties may bring another individual for support but this person may not speak or participate in the hearing, unless the person is a named witness.

### **Deliberation**

The Panel shall deliberate privately at the close of the hearing. If a majority of the Panel finds that the allegations are supported by a “preponderance of the evidence,” the Panel will make confidential recommendations to the CPH Dean to resolve the matter. If a majority of the Panel finds that the allegations are *not* supported by a “preponderance of the evidence,” the panel reports that as well to the Dean.

### **Report**

The Panel will provide a formal written report summarizing the obtained evidence, detailed proceedings, conclusions, and recommended actions to the CPH Dean within 30 class days of when the Panel assembled. If the Panel identifies misconduct, the CPH Dean is responsible for immediate and timely corrective action in coordination with the Department Chair of the faculty member’s primary unit, taking into consideration the recommendations of the panel.

The CPH Dean will distribute the conclusion and recommended action(s) by the Panel within 10 class days of receiving the full report from the Panel to the involved faculty member and the chair of the faculty member’s primary department. The CPH Dean will also distribute the conclusion and non-confidential recommended action(s) by the Panel as well as the non-confidential corrective action(s) as determined by the CPH Dean to the student.

### Outline of Formal Complaint Procedure and Timelines

| Person Responsible  | Action   | To   | Timeline  |
|---|--|--|---|
| Student   | Submits complaint electronically   | COPH Senior Associate Dean                           | Within 60 days after the incident occurred or within 60 days after informal resolution has failed |
| COPH Senior Associate Dean  | Acknowledges receipt of complaint electronically   | Student  | Within 5 days after receiving complaint   |
| COPH Senior Associate Dean  | Meets individually with student and faculty  | Student, Faculty                                     | Within 10 days of notification of receipt   |
| COPH Senior Associate Dean  | Convenes Panel if resolution is not reached  | Student, Faculty                                     | Within 10 days of last individual meeting   |
| Student, Faculty  | Submits statements, evidence to Panel  | COPH Professional Student Grievance Panel            | Within 10 days of last individual meeting   |
| COPH Professional Student Grievance Panel   | Submits written report of complaint review   | COPH Dean  | Within 30 days of Panel assembling to review complaint  |
| COPH Dean   | Distributes Panel's conclusion and recommended actions   | Involved faculty member and his/her department chair | Within 10 days of receiving Panel's full report   |
| COPH Dean   | Distributes Panel's conclusion and non-confidential recommended actions and non-confidential corrective actions as determined by the COPH Dean | Student  | Within 10 days of receiving Panel's full report   |
| COPH Dean in coordination with faculty member's department chair  | <b>If Panel identifies misconduct :</b> takes corrective action against the faculty member, considering the recommendations of the Panel       | Faculty member                                       | Immediate and timely  |
| Definitions:<br>(1) days are class days and are defined as days when the COPH is open for academic/administrative activities .<br>(2) Faculty is the faculty identified in the complaint<br>(3) Student is the complainant.<br>(4) Department Chair is the chair of the involved faculty's primary department |  |  |   |

## TRANSFER OF CREDIT

All graduate credits to be counted toward the satisfaction of requirements for the MPH and the Certificate programs—including all credits transferred from other programs of the University of Nebraska and/or other institutions of higher education—must be approved by the Curriculum Committee and the Associate Dean for Academic and Student Affairs. Grades received in courses for transfer of credit must be the equivalent of "B" (3.00) or higher on the University of Nebraska grade scale.

Use of graduate credit earned for another degree will be treated in the same manner as transfer credit from another institution if applied to the requirements for the degree. Up to one-third of the course work required for the MPH or Certificates may be accepted from an accredited institution other than a unit of the University of Nebraska when the transfer is supported by the student's advisor and the Curriculum Committee. Students wishing to transfer credit must submit official transcripts of graduate-level work taken elsewhere and course syllabi to the Office of Educational Services for review by the Curriculum Committee no later than one semester before the student intends to graduate. *It is recommended that this be done at the time of application/admission to the program so that students are fully aware of their complete plan of study.* Transfer of graduate credits from a course taken with a pass/fail option must be recommended by the Curriculum Committee, supported by a written evaluation from the instructor, and approved by the Associate Dean for Academic and Student Affairs.

Transfer of credit for courses taken 5 or more years prior to the time of admission will be evaluated by the Curriculum Committee on a case-by case basis.

# REGISTRATION

## **Registering for CPH Classes**

Registration is accomplished before each academic term. Information and instructions regarding registration are circulated prior to the date of registration. All MPH/Certificate students are required to meet with their academic advisor prior to beginning coursework to establish a master plan of study. It is highly recommended that meetings occur prior to each academic session.

## **Procedure**

- Registration will be conducted online at: <http://myrecords.unmc.edu>

## **Intercampus Registration**

MPH students in good standing who wish to register for courses on a University of Nebraska campus other than their home campus must complete an intercampus registration form. The intercampus registration form is available on-line at <https://intercampus.nebraska.edu/cCnotice.aspx>

After the form is processed, students will be contacted by the host campus with information for access and registration.

# GRADING

MPH/Certificate students are graded by letter grades, with associated quality points for courses completed, as follows:

## **Grade Quality Points**

|    |      |
|----|------|
| A+ | 4.00 |
| A  | 4.00 |
| A- | 3.67 |
| B+ | 3.33 |
| B  | 3.00 |
| B- | 2.67 |
| C+ | 2.33 |
| C  | 2.00 |
| C- | 1.67 |
| D+ | 1.33 |
| D  | 1.00 |
| D- | 0.67 |
| F  | 0.00 |

Grade point averages are determined by multiplying the quality points earned in each course by the number of credit hours for that course, adding the products for all courses, and then dividing the sum by the total number of credit hours in which quality points were earned. Grades of Pass/Fail are not used in determining grade point averages.

Grades for all required core courses must be a B- (2.67) or above. A student may repeat any course in which he/she received a grade below a B (3.00), with the approval of the student's academic advisor, course instructor, and the Associate Dean for Academic Affairs. A student registering for such a course should notify the Office of Academic Records of re-registration in the course. Both grades will appear on the transcript, but only the last grade will be used in determining the grade point average.

Only a Pass/Fail grade is to be used for research projects. The grade of "I" is to be used by an instructor at the end of a term to designate incomplete work in a course. It is used when a student, due to extenuating circumstances such as illness, military service, hardship, or death in the immediate family, is unable to complete the requirements of the course in the term in which the student is registered for credit. A grade of Incomplete is given only if a student has already substantially completed the major requirements of a course. Instructors will judge each situation individually.

The instructor must also indicate by a department record, with a copy to the student, how and by when the Incomplete is to be removed; if the instructor is at the University at the time of the removal, he/she must supervise the makeup work and report the permanent grade. In the event that the instructor is not available at the time of the student's application for removal of an Incomplete, the department chairperson shall supervise the removal of the Incomplete and turn in the permanent grade for the student.

Grades of Incomplete must be completed within one semester after they have been awarded or they will be automatically changed to grade of F. Any extensions to the one-semester time frame must be

arranged with the Associate Dean for Academic and Student Affairs prior to the Incomplete being changed to a grade of F.

A student with two or more current grades of Incomplete will not be permitted to enroll in any new courses until the number of current Incomplete grades becomes less than two.

All grades of “I” on courses that are part of the degree requirements must be removed at least one month prior to the end of the final semester of enrollment.



# GRADUATION

## Filing for graduation

Each student who expects to receive a diploma is required to complete the following steps:

1. Submit the appropriate form based upon your program (see below) to the CPH Office of Educational Services by the indicated deadline.
  - MPH Students – Candidacy and Completion of Requirements Form
  - Certificate Students – Completion of Requirements Form
2. File the degree application and fee by the deadline date through the UNMC Office of Academic Records on the MYRECORDS website.

| Expected Graduation Term   | CPH Forms Deadline         | Degree Application Deadline |
|----------------------------|----------------------------|-----------------------------|
| Fall (December) Graduation | September 15 <sup>th</sup> | October 1 <sup>st</sup>     |
| Spring (May) Graduation    | January 15 <sup>th</sup>   | February 1 <sup>st</sup>    |
| Summer (August) Graduation | May 15 <sup>th</sup>       | June 1 <sup>st</sup>        |

## Application

Students intending to graduate are required to complete an application for Degree; this includes a nonrefundable/nontransferable fee that covers the cost of the diploma, diploma cover and posting of the degree. Conferral of degrees cannot be awarded with the completed Application for Degree.

## Attendance

Students graduating in May, may only attend the May ceremony and December graduates may only attend the December ceremony. August graduates are invited to attend the December ceremony (see exception below). Dual enrollment students may request the reading of both degrees at the time of the awarding of the last degree.

Students who receive an incomplete or an NR in a course during their final semester will be able to walk at commencement as planned. A diploma will not be issued until the completion of all course requirements. All work must be completed and a grade reported before the deadline to apply for the next graduation cycle. Those not completing work by this date will be required to reapply for graduation at a date subsequent to the completion of all work.

## Attire

All graduating students are required to rent (or purchase) academic attire for ALL UNMC ceremonies (commencement and convocation). Rental and purchase of attire is coordinated through Academic Affairs Student Services. Flowers, sashes, pins, signs or other adornments are not allowed on robes or mortarboards. The only exceptions are professional honor society cords and/or academic honor medallions.

Commencement and Convocation ceremony information can be found at

<http://www.unmc.edu/student-services/academic-records/commencement/index.html> All other questions can be directed to Barbara Breazeale at 402-559-1946 or [bbreazea@unmc.edu](mailto:bbreazea@unmc.edu).

# GENERAL INFORMATION

## **Student Rights and Responsibilities**

The Bylaws of the Board of Regents at the University of Nebraska protect the rights of each member of the University community. Each individual has the right to be treated with respect and dignity, and each has the right to learn. With these rights comes the responsibility of each individual to maintain an atmosphere in which others may exercise their human rights and their right to learn. Chapter V of the Bylaws fully delineates the rights and responsibilities of students. UNMC policies are in accord with Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973 and Sections 799AS and 854 of the Public Health Services Act.

## **Admission to the College of Public Health**

Applicants must hold a minimum of a baccalaureate degree or equivalent from a recognized college or university. Specific requirements for admission to a program are listed in the departmental sections.

## **Services for veterans**

All men and women planning to attend UNMC under Chapters 31, 34, 35, and 1606, the educational assistance and vocational rehabilitation laws administered by the Veterans Administration, should inquire at the Office of Academic Records before they register to make sure all necessary steps have been taken.

## **Tuition and Fees**

Tuition and fees charges are subject to future change without notice. The following information, therefore, is offered as a guideline, not as a firm commitment. Tuition is based on the number of hours enrolled.

<http://www.unmc.edu/financialaid/vital/>

Some courses require payment of a laboratory or course-related fee – these will be indicated on the Summary of Courses. A detailed list of fees is published in the UNMC Student Handbook.

## **Change of concentration**

Process/Procedure

It is the student's responsibility to:

- Contact the Office of Educational Services to declare a request to change concentration.
- Obtain written approval of academic advisor for change of concentration. (An e-mail approval is acceptable. Please copy the Office of Educational Services on all correspondence.)
- The Office of Educational Services will submit the request to the concentration department the student wishes enter.
- The Office of Educational Services will notify the student of the department's determination.

**Certification of Full-time status**

MPH/Certificate students requiring certification as full-time students must be enrolled for at least 9 credit hours during a semester, at least 4 credit hours during an eight-week session, or at least 3 credit hours during a five week session.

**Deferral/Delaying enrollment**

Students admitted to the MPH or Certificate programs are expected to start classes in the semester in which they were admitted. The official start date for the program of study is significant because students have a limit of seven years to complete studies, calculated from the start date of the semester in which they were admitted through seven complete academic year cycles.

Students admitted to the MPH or Certificate programs who elect to defer admission, and thus the start date of classes, must request approval in writing from the Office of Educational Services before the semester begins. A request for more than two semesters will not be granted and the student will need to reapply if she/he wishes to participate in the program.

Any student who is admitted to the MPH or Certificate program but does not enroll in classes or complete an official deferral of admission will be considered withdrawn prior to matriculation and will need to reapply if she/he wishes to participate in the program.

**Disenrollment/Dismissal**

Contact the CPH Office of Educational Services.

**Readmission**

An MPH/Certificate student who has been dismissed for failure to meet academic standing requirements may reapply following standard application procedures.

**Reinstatement following disenrollment**

Contact the CPH Office of Educational Services.

**Withdrawal from university**

Contact the CPH Office of Educational Services

**Blackboard Access**

Access to Blackboard is granted to all students as soon as they have registered for their first course in the program. Blackboard logins and passwords are set up to correspond with the Outlook logins and passwords. Should students encounter any problems with accessing Blackboard they should contact the UNMC Help Desk.

Blackboard Site address – <http://my8.unmc.edu>

Help Desk

E-mail – [helpdesk@unmc.edu](mailto:helpdesk@unmc.edu)

Phone – 402-559-7700

E-mail/Microsoft Outlook

**Student E-mail**

All students are required to use official student e-mail accounts for communication pertaining to University matters. Personal e-mail accounts will not be used for communication with students after students matriculate. Students are responsible for checking their e-mail regularly.

Once a student enrolls for classes, UNMC Information Technology Services (ITS) will mail the information required to access the student's Outlook e-mail account. Outlook can be accessed from off campus using the web-based Outlook, which uses the same login and password.

**Grievances**

Refer to the UNMC Student Handbook for procedures. <https://net.unmc.edu/care/docs/handbook.pdf>

# SERVICE-LEARNING/CAPSTONE EXPERIENCE

The Service-Learning/Capstone Experience is a 6-credit-hour integrated culminating experience that consists of two parts: (1) three credit hours (150 practical hours) of service learning in an approved organization under the direction of a practitioner (preceptor) and a faculty committee, and (2) three credit hours (150 practical hours) of research or program evaluation that includes a final paper and presentation to committee members, faculty, staff, and students.

The Service-Learning/Capstone Experience (SL/CE) is an essential part of the UNMC MPH Program and is required of all students in the MPH Program. It is designed to provide students with firsthand, scholarly, supervised experience in a practice setting. In the course of this community-based experience, students provide service that contributes to the health of the population while learning and further developing public health competencies under the guidance of established professionals. This experience augments the academic course work, providing students with an opportunity to integrate and apply/test the knowledge, principles, and skills acquired through classroom instruction.

In service learning, there is an equal focus on service and on learning. Activities, outcomes, and scheduled hours are negotiated among the placement site, the student, and the service-learning capstone course faculty member. Service learning is considered a capstone experience that not only allows students to demonstrate basic public health competencies and further develop essential skills, (e.g., collaborative team work, health education intervention skills, and management skills) but also to integrate academic course work with actual public health practice under the supervision of established public health practitioners. The SL/CE develops an environment of academic participation, collaboration, and engagement among students, faculty, and the community.➔

## References

Kendall, Jane C. (1990.) "Combining Service and Learning: An Introduction." Combining Service and Learning: A Resource Book for Community and Public Service, Volume 1 Raleigh, NC: National Society for Experiential Education.

## Objectives of Service Learning

Through participation in the Service-Learning/Capstone Experience students will:

1. Develop a capstone project proposal that
  - Clearly demonstrates integrated and applied knowledge, principles and skills acquired through classroom instruction.
  - Meets community identified needs.
2. Perform activities that demonstrate the development/enhancement/application of **core public health competencies** and describe activities performed to achieve/address these competencies.
3. Demonstrate the development/enhancement/application of **concentration specific competencies** and describe activities performed to achieve/address these competencies.
4. Develop a capstone paper which reflects the integration of public health knowledge, principles and skills and demonstrates mastery of public health principles, values and practice.
5. Design and deliver an oral presentation of the paper, including the process, background, and results of the project.

6. Develop a beneficial product for the placement site as appropriate.
7. Share project/product with the organization/community as appropriate.

Students will negotiate the specifics of the Service-Learning/Capstone Experience project with the capstone faculty chair and the community placement preceptor. Approaches and methodologies for the experience will vary, including group and individual projects, but each experience will, at a minimum, give students exposure to one or more of the core functions and essential services of public health and a majority of the public health competencies.

Contact the Director of Master's Programs for more information on the Service-Learning/Capstone Experience.

# STUDENT PORTFOLIOS

Every Master of Public Health (MPH) student is required to develop a portfolio that describes the student's experiences and accomplishments while at the University of Nebraska Medical Center College of Public Health (COPH). The portfolio is intended to be relevant to their professional development, and to assess educational outcomes for students in the MPH Program.

## WHAT IS THE PURPOSE OF THE PORTFOLIO?

- To demonstrate progress toward public health competencies over time.
- To equip students with products (i.e. résumé, professional mission statement and goals, exceptional work samples) relevant to career development and job searches.
- To enhance the relationship between student and advisor, by discussing student's career and educational goals.

## WHAT ARE THE REQUIRED SECTIONS FOR THE PORTFOLIO?

1. Title Page
2. Professional Mission Statement and Goals
3. Competency Reflection
4. Work Samples
5. Résumé

For more information on deadlines, formatting, advisor review and submission of the Student Portfolio, please reference the **guide** and **template** found at **<http://unmc.edu/publichealth/services/oes/student-portfolio.html>**

# ACADEMIC ADVISING

## **Assigning an Academic Advisor**

### **Certificate Programs**

Each student will be assigned an academic advisor upon admission. It is the responsibility of the student to contact the advisor concerning the plan of study and academic progression.

### **MPH Program**

Each student will be assigned an academic advisor upon admission based on their program, concentration, and interest of study. It is the responsibility of the student to contact the advisor concerning the plan of study and academic progression.

## **Academic Advisor Contract**

In support of our efforts to constantly improve and clarify the student and advisor relationship, the College of Public Health has created an Advising Contract for Faculty and Students in the Master of Public Health Program. This contract serves to establish the roles and expectations for each party. It is recommended that you and your advisor go over the contract in your first meeting, and that each of you sign the document to signify that you understand your obligations.

**<http://unmc.edu/publichealth/services/oes/advisingcontract2013final.pdf>**

## **Changing Academic Advisor**

If students feel the need to change their academic advisor, they must first request release from their current advisor in writing and receive permission from that advisor. The student must then identify and request permission from the advisor to whom they wish to transfer. Finally, it is the student's responsibility to inform the Office of Educational Services of any advisor change.



# TIME LIMITATION

Time limitations for the Certificate and MPH programs are assessed from the semester the student initially enrolls in the program.

## **Certificate Programs**

### **3 Years**

The certificate programs (as defined in the plan of study) must be completed within three consecutive calendar years. Course work that would be over three years old at the completion of the degree program cannot be used for the certificate. The first day of class of the earliest course which appears on the student's plan of study is the beginning of the student's certificate education.

## **MPH Program**

### **7 Years**

The degree program (as defined in the plan of study) for MPH degrees must be completed within seven consecutive calendar years. Course work that would be over seven years old at the completion of the degree program cannot be used for a master's degree. The first day of class of the earliest course which appears on the student's plan of study is the beginning of the student's MPH education.

# **Graduate Student Section**

**MS in Emergency Preparedness**

**PhD in Biostatistics**

**PhD in Epidemiology**

**PhD in Environmental Health, Occupational Health  
and Toxicology**

**PhD in Health Promotion Disease Prevention  
Research**

**PhD in Health Services Research, Administration  
and Policy**

# CONTACT DIRECTORY

## Biostatistics

Graduate Program Director – Gleb Haynatzki, PhD

## Epidemiology & Emergency Preparedness

Graduate Program Director – Monirul Islam MD, PhD

## Environmental Health, Occupational Health, and Toxicology

Graduate Program Director – Chandran Achutan, PhD

## Health Promotion and Disease Prevention Research

Graduate Program Director – Ghada Soliman, MD, PhD, RD, LMNT

## Health Services Research Administration and Policy

Graduate Program Director – Fernando Wilson, PhD

## UNMC Office of Graduate Studies

987810 Nebraska Medical Center

Omaha, NE 68198-7810

402-559-6531 (phone)

402-559-7845 (fax)

E-mail : [unmcgraduatestudies@unmc.edu](mailto:unmcgraduatestudies@unmc.edu)

# GRADUATE PROGRAM GOVERNANCE

The University of Nebraska is composed of four major administrative units: the University of Nebraska at Kearney (UNK), the University of Nebraska-Lincoln (UNL), the University of Nebraska Medical Center (UNMC), and the University of Nebraska at Omaha (UNO). Each of the four major units is led by a Chancellor who reports to the University President. The University is ultimately governed by a twelve-member Board of Regents that insures that the Institution fulfills its role and mission of providing quality instruction, research, and public service for the citizens of the state.

The Graduate College of the University of Nebraska is a system-wide college with programs administered on each of the four major administrative units of the University of Nebraska. The Dean of the Graduate College, in conjunction with an Executive Graduate Council representing the Graduate Faculty, is responsible for the College's activities. Graduate educational programs are offered at UNK, UNL, UNMC, and UNO through separate Graduate Studies divisions, each led by a Dean for Graduate Studies. Each campus Dean reports to both the Chancellor of the campus and to the Dean of the Graduate College. Information on the graduate programs on the other campuses should be requested from the campus Graduate Studies Office.

As part of the system-wide Graduate College, the Graduate Studies programs at UNMC offer advanced instruction leading to the master's and doctor of philosophy degrees in health-related areas. The UNMC Dean for Graduate Studies, in conjunction with the UNMC Graduate Council elected from the UNMC Graduate Faculty, is responsible for Graduate College activities at the Medical Center.

# DOCTOR OF PHILOSOPHY: GENERAL OVERVIEW

## PURPOSE AND PROGRAM DESIGN

The Board of Regents approved the UNMC CPH Environmental Health, Occupational Health, and Toxicology (EHOHT) PhD program in 2007 and the Health Services Research, Administration, and Policy (HSRAP) and Health Promotion and Disease Prevention Research (HPDPR) programs in 2009. The purpose of the PhD programs is to prepare students to become ethically, culturally, and scientifically competent researchers and educators in public health. The programs promote inter- and trans-disciplinary education, research, and service activities that are relevant to the community and population that we serve. An academic department hosts and operates each of the three PhD programs. In each department, a Graduate Committee, chaired by the Graduate Program Director, develops and implements curriculum, makes admission decisions, advises students, and monitors student progress.

| Degree Program  | Sponsoring Department                                |
|---|--|
| Biostatistics   | Biostatistics  |
| Epidemiology  | Epidemiology   |
| Environmental Health, Occupational Health, and Toxicology PhD | Environmental, Agricultural, and Occupational Health |
| Health Promotion and Disease Prevention Research PhD          | Health Promotion, Social and Behavioral Health       |
| Health Services Research, Administration, and Policy PhD      | Health Services Research and Administration          |

The overall coordination of CoPH PhD programs is by the Director, Doctoral Programs. The UNMC Graduate Studies Office has specific requirements for admission, academic standing, program requirements, comprehensive examinations, dissertations, candidacy, and graduation. Please see the UNMC Graduate Bulletin for details at <http://www.unmc.edu/gradstudies/105.htm>.

# APPENDIX

# **CERTIFICATE IN COMMUNITY ORIENTED PRIMARY CARE OVERVIEW**

# ADMISSION REQUIREMENTS

- Completion of the College of Public Health application and submission of an application fee.
- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.

Foreign Transcripts: Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.

Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided

- Two letters of recommendation from academic or professional references.
- A one-page personal statement describing the applicant's:
  - Interest in and potential for contributing to the field of public health
  - Career objectives
  - Self-assessment of computer, quantitative analysis, and personal skills and general preparation for succeeding in a public health certificate program
- All applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States are required to submit official Test of English as a Foreign Language (TOEFL) scores.
- Admissions are limited to the number that can best be handled to the advantage of the students and program operations. Preference is given to residents of Nebraska, to individuals who wish to pursue study that can be adequately supported by program resources, and to those who have adequate preparation and time for their proposed program.



# PROGRAM OF STUDY

## Program Requirements

### Core Curriculum

A total of 18 credit hours are required for completion of the Certificate in Community Oriented Primary Care (CCOPC).

### Core Courses: 15 Credit Hours

|                         |          |
|-------------------------|----------|
| CPH 501 Health Behavior | 3 cr hrs |
|-------------------------|----------|

|   |                 |
|---|-----------------|
| <i>CPH 500 Foundations of Public Health</i> | <i>3 cr hrs</i> |
|---|-----------------|

-or-

|   |  |
|---|--|
| <i>CPH 502 Health Services Administration</i> |  |
|---|--|

|                                       |          |
|---------------------------------------|----------|
| CPH 504 Epidemiology in Public Health | 3 cr hrs |
|---------------------------------------|----------|

|  |          |
|--|----------|
| CPH 551 Community Oriented Primary Care: Principles and Practice | 3 cr hrs |
|--|----------|

|   |          |
|---|----------|
| CPH 552 Opportunities and Challenges in the Application of COPC | 3 cr hrs |
|---|----------|

### Elective Course: 3 Credit Hours

|          |
|----------|
| 3 cr hrs |
|----------|

College of Public Health course(s) selected with assistance of CCOPC advisor

### Total Credits:

|           |
|-----------|
| 18 cr hrs |
|-----------|

# **CERTIFICATE IN HEALTH POLICY OVERVIEW**

# ADMISSION REQUIREMENTS

- Completion of the College of Public Health application and submission of an application fee.
- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.

Foreign Transcripts: Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.

Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided

- Two letters of recommendation from academic or professional references.
- A one-page personal statement describing the applicant's:
  - Interest in and potential for contributing to the field of public health and health policy
  - Career objectives
  - Self-assessment of computer, quantitative analysis, and personal skills and general preparation for succeeding in a public health certificate program
- All applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States are required to submit official Test of English as a Foreign Language (TOEFL) scores.

# PROGRAM OF STUDY

## Program Requirements

### Core Curriculum

A total of 18 credit hours are required for completion of the Certificate in Health Policy

Core Courses: 18 Credit hours

|   |          |
|---|----------|
| CPH 502 Health Services Administration        | 3 cr hrs |
| CPH 505 Applied Research in Public Health     | 3 cr hrs |
| CPH 555 Public Health Law                     | 3 cr hrs |
| CPH 556 Health Policy Analysis and Evaluation | 3 cr hrs |
| CPH 564 Health Economics                      | 3 cr hrs |
| CPH 566 Health Policy                         | 3 cr hrs |

|                |           |
|----------------|-----------|
| Total Credits: | 18 cr hrs |
|----------------|-----------|

# **CERTIFICATE IN INFECTIOUS DISEASE EPIDEMIOLOGY OVERVIEW**

# ADMISSION REQUIREMENTS

- Completion of the College of Public Health application and submission of an application fee.
- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.
  - Foreign Transcripts: Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.
  - Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided
- Two letters of recommendation from academic or professional references.
- A one-page personal statement describing the applicant's:
  - Interest in and potential for contributing to the field of public health and infectious disease
  - Career objectives
  - Self-assessment of computer, quantitative analysis, and personal skills and general preparation for succeeding in a public health certificate program
- All applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States are required to submit official Test of English as a Foreign Language (TOEFL) scores.
- Prerequisites:
  - The student must have received the equivalent of a grade of B or better in a statistics course, differential calculus, integral calculus, algebra or a more advanced mathematics course taken within five years of program application.
- Admissions are limited to the number that can best be handled to the advantage of the students and program operations. Preference is given to residents of Nebraska, to individuals who wish to pursue study that can be adequately supported by program resources, and to those who have adequate preparation and time for their proposed program.

# PROGRAM OF STUDY

## Program Requirements

### Core Curriculum

A total of 18 credit hours are required for completion of the Certificate in Infectious Disease Epidemiology.

Core Courses: 9 Credit hours

|   |          |
|---|----------|
| CPH 504 Epidemiology in Public Health   | 3 cr hrs |
| CPH 506 Biostatistics I                 | 3 cr hrs |
| CPH 623 Infectious Disease Epidemiology | 3 cr hrs |

Elective Courses: 9 credit hours selected from the list below

|  |          |
|--|----------|
| CPH 624 Advanced Infectious Disease Epidemiology | 3 cr hrs |
| CPH 628 Principles of Epidemiologic Research     | 4 cr hrs |
| CPH 631 Emergency Preparedness: Protection       | 3 cr hrs |
| CPH 650 Biostatistics II                         | 3 cr hrs |
| PAMM 509 Immunology                              | 2 cr hrs |
| PAMM 550 Medical Microbiology                    | 3 cr hrs |

|                |           |
|----------------|-----------|
| Total Credits: | 18 cr hrs |
|----------------|-----------|

# **CERTIFICATE IN MATERNAL AND CHILD HEALTH OVERVIEW**



# ADMISSION REQUIREMENTS

- Completion of the College of Public Health application and submission of an application fee.
- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.

Foreign Transcripts: Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.

Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided

- A résumé reflecting one or more years of work/volunteer history related to public health.
- Two letters of recommendation from academic or professional
- A personal essay describing:
  - A brief personal history describing their statement of interest and motivation for pursuing a certificate program in MCH; ability to communicate with peers and others and team work; career goals
- All applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States are required to submit official Test of English as a Foreign Language (TOEFL) scores.
- Admissions are limited to the number that can best be handled to the advantage of the students and program operations. Preference is given to residents of Nebraska, to individuals who wish to pursue study that can be adequately supported by program resources, and to those who have adequate preparation and time for their proposed program.

# PROGRAM OF STUDY

## Program Requirements

### Core Curriculum

A total of 18 credit hours are required for completion of the Certificate in Maternal and Child Health.

Core Courses: 18 credit hours

|  |           |
|--|-----------|
| CPH 501 Health Behavior                                  | 3 cr hrs  |
| CPH 504 Epidemiology in Public Health                    | 3 cr hrs  |
| CPH 546 Introduction to MCH                              | 3 cr hrs  |
| CPH 547 Advanced MCH                                     | 3 cr hrs  |
| CPH 548 Child and Adolescent Growth and Development      | 2 cr hrs  |
| CPH 549 Women's Health                                   | 2 cr hrs  |
| CPH 627 Epidemiological Measurements and Research in MCH | 2 cr hrs  |
| Total credits:   | 18 cr hrs |

# **CERTIFICATE IN EMERGENCY PREPAREDNESS OVERVIEW**

# ADMISSION REQUIREMENTS

- Completion of the College of Public Health application and submission of an application fee.
- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.

Foreign Transcripts: Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.

Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided

- Two letters of recommendation from academic or professional references.
- A one-page personal statement describing the applicant's:
  - Interest in and potential for contributing to the field of public health and preparedness
  - Career objectives
  - Self-assessment of computer, quantitative analysis, and personal skills and general preparation for succeeding in a public health certificate program
- All applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States are required to submit official Test of English as a Foreign Language (TOEFL) scores.
- Admissions are limited to the number that can best be handled to the advantage of the students and program operations. Preference is given to residents of Nebraska, to individuals who wish to pursue study that can be adequately supported by program resources, and to those who have adequate preparation and time for their proposed program.

# PROGRAM OF STUDY

## Program Requirements

### Core Curriculum

A total of 18 credit hours are required for completion of the Certificate in Emergency Preparedness.

Core Courses: 12 credit hours

|   |          |
|---|----------|
| CPH 550 Emergency Preparedness: Prevention            | 3 cr hrs |
| CPH 553 Emergency Preparedness: Response              | 3 cr hrs |
| CPH 554 Emergency Preparedness: Response and Recovery | 3 cr hrs |
| CPH 631 Emergency Preparedness: Protection            | 3 cr hrs |

Elective courses: 6 credit hours selected from the list below

|                                       |          |
|---------------------------------------|----------|
| CPH500 Foundations of Public Health   | 3 cr hrs |
| CPH 504 Epidemiology in Public Health | 3 cr hrs |
| CRCJ 8230 Terrorism (UNO Course)      | 3 cr hrs |

|                |           |
|----------------|-----------|
| Total credits: | 18 cr hrs |
|----------------|-----------|

Duration/Scheduling of the Program - The recommended duration for the certificate program is two academic semesters (fall and spring). All credits must be earned within a three year period. Extensions for good cause may be granted by permission of the Curriculum Committee.

# **CERTIFICATE IN PUBLIC HEALTH PROGRAM OVERVIEW**

# ADMISSION REQUIREMENTS

- Completion of the College of Public Health application and submission of an application fee.
- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.

**Foreign Transcripts:** Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.

Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided

- Two letters of recommendation from academic or professional references.
- A one-page personal statement describing the applicant's:
  - Interest in and potential for contributing to the field of public health
  - Career objectives
  - Self-assessment of computer, quantitative analysis, and personal skills and general preparation for succeeding in a public health certificate program
- All applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States are required to submit official Test of English as a Foreign Language (TOEFL) scores.
- Admissions to the Certificate in Public Health program are limited to the number that can best be handled to the advantage of the students and program operations. Preference is given to residents of Nebraska, to individuals who wish to pursue study that can be adequately supported by program resources, and to those who have adequate preparation and time for their proposed program.

# PROGRAM OF STUDY

## Program Requirements

### Core Curriculum

A total of 18 credit hours are required for completion of the Certificate in Public Health Program.

Core Courses: 18 credit hours

|         |                                       |          |
|---------|---------------------------------------|----------|
| CPH 500 | Foundations in Public Health          | 3 cr hrs |
| CPH 501 | Health Behavior                       | 3 cr hrs |
| CPH 502 | Health Services Administration        | 3 cr hrs |
| CPH 503 | Public Health, Environment, & Society | 3 cr hrs |
| CPH 504 | Epidemiology in Public Health         | 3 cr hrs |
| CPH 506 | Biostatistics I                       | 3 cr hrs |

CPH 506 Required Prerequisites: An undergraduate or graduate statistics course or permission of instructor. While successful completion of an undergraduate or graduate statistics course is not required for admission into the Certificate of Public Health Program, students enrolling for CPH 506 Biostatistics I must have successfully completed a statistics course within the past 5 years resulting in a grade of B or better or obtain permission of the instructor.



# **MASTER OF PUBLIC HEALTH PROGRAM OVERVIEW**

# INTRODUCTION TO THE MPH PROGRAM

## **MPH Program Description**

The UNMC Master of Public Health Program is a specialized professional master's degree program designed to prepare graduates for work in public health. Public health practice is increasingly regarded as important to citizen well-being as a means to better health and potential reduction in costs for critical care.

Core courses focus on the areas of knowledge basic to public health. Concentration areas emphasize the areas of prevention, scientific knowledge base, interdependency with other areas of knowledge and practice, and social justice.

Course material pays particular attention to health status, health outcomes, and health needs in special populations (e.g., racial and ethnic minorities, children, and women). Statistics related to these populations, as well as cultural and etiological considerations, will be discussed throughout the curriculum in an effort to instill in students the need for awareness of the health differences in population groups. The goal of this orientation is to equip program graduates to address society's public health needs. Elective courses will be drawn from a broad base of courses.

The MPH Program was approved by the Board of Regents and the Nebraska Coordinating Commission for Postsecondary Education in the summer/fall of 2001 and began admitting students in January 2002.

# ADMISSION REQUIREMENTS

- Official transcripts reflecting an earned bachelor's degree, with a 3.0 or higher grade point average for the last 60 undergraduate or the last 18 graduate/post-baccalaureate credit hours completed.

Foreign Transcripts: Official transcripts or mark sheets of college level work not in English or in the standard U.S. grading scale must be sent to a credential evaluation service for translation.

Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If transcripts do not show the degree earned and the date on which it was conferred, official degree statements must also be provided

- Official Graduate Record Examination (GRE) scores taken within the last five years.
- Three letters of recommendation from academic or professional references.
- A resume reflecting one or more years of work/volunteer history related to health and/or human services.
- A one-page personal statement.
- Official Test of English as a Foreign Language (TOEFL) scores are required of all applicants whose primary language is not English or whose undergraduate degree is from a college or university outside of the United States.
- Epidemiology Concentration Prerequisites:
  - The student must have received the equivalent of a grade of B or better in a statistics course, differential calculus, integral calculus, algebra or a more advanced mathematics course taken within five years of program application.
- Environmental and Occupational Health Prerequisites:
  - The student must have successfully completed the following courses: two semesters of biology, two semesters of chemistry, one semester of physics, and one semester of college level math.
- Biostatistics Concentration Prerequisites:
  - The student must have received the equivalent of a grade of B or better in a college-level statistics course, differential calculus and integral calculus.

# CORE CURRICULUM

## Degree Requirements

### MPH Core Curriculum

A total of 45 credit hours are required for completion of the Master of Public Health Program.

MPH Core Courses: 21 credit hours

|         |   |          |
|---------|---|----------|
| CPH 500 | Foundations in Public Health                              | 3 cr hrs |
| CPH 501 | Health Behavior   | 3 cr hrs |
| CPH 502 | Health Services Administration                            | 3 cr hrs |
| CPH 503 | Public Health Environment and Society                     | 3 cr hrs |
| CPH 504 | Epidemiology in Public Health                             | 3 cr hrs |
| CPH 505 | <i>Applied Research in Public Health</i>                  | 3 cr hrs |
| -or-    |   |          |
| CPH 517 | <i>Design of Medical Studies</i>                          | 3 cr hrs |
|         | <i>*Required for Biostatistics concentration students</i> |          |
| CPH 506 | <i>Biostatistics I</i>                                    | 3 cr hrs |

*CPH 506 and CPH 504 must be successfully completed in the first 18 hours of the program of study.*

*Students who do not complete Biostatistics and Epidemiology with a grade of B- or better must retake the course within the next 18 months.*

*CPH 500 must be successfully completed in the first 21 hours of the program of study.*

*CPH 506 Required Prerequisites: Undergraduate or graduate statistics course or permission of instructor. While successful completion of an undergraduate or graduate statistics course is not required for admission into the MPH program, students enrolling for CPH 506 Biostatistics I must have successfully completed a statistics course within the past 5 years resulting in a grade of B or better or obtain permission of the instructor.*

# CONCENTRATION AREAS

There are ten areas of concentration. Each of the following areas of concentration requires 12 credit hours of prescribed coursework:

## **Biostatistics**

The Biostatistics concentration provides the basic biostatistical and quantitative skills and knowledge to prepare students for careers in public health practice and public health research. This area of study is designed to meet the needs of those individuals who work in public health and who desire to broaden their training by learning the statistical/quantitative evaluation of public health research and programs. The concentration provides the tools needed to conceptualize and define a public health problem in multidimensional terms, to develop an appropriate study design, to plan and implement proper statistical analyses, and to interpret and report the results of a study. The course work and applications focus on methodology typically used to analyze different types of public health data and provide the opportunity to apply these methods to real-world problems.

12 credit hours from these courses:

|                                   |          |
|-----------------------------------|----------|
| CPH 652 Biostatistical Methods II | 3 cr hrs |
| CPH 653 Categorical Data Analysis | 3 cr hrs |
| CPH 654 Survival Data Analysis    | 3 cr hrs |
| CPH 655 Correlated Data Analysis  | 3 cr hrs |

## **Community Oriented Primary Care**

The MPH concentration in community-oriented primary care (COPC) is designed to provide students with knowledge, tools, and skills in community orientation of health services, necessary for the application of the COPC approach. The COPC approach integrates clinical individual care and public health, allowing both actions to be implemented and carried out by a single team. The conceptual framework of COPC and the curriculum of this concentration are oriented to the implementation of community health care programs, including the community-population approach to the delivery of health care at primary care level as a component of public health.

12 credit hours from these courses:

|  |          |
|--|----------|
| CPH 551 Community-Orient Primary Care: Principles and Practice         | 3 cr hrs |
| CPH 552 Opportunities and Challenges in the Application of COPC        | 3 cr hrs |
| CPH 626 Health Information and Surveillance for Public Health Practice | 3 cr hrs |
| CPH 545 Health Disparities and Health Equity                           | 3 cr hrs |

## Environmental and Occupational Health

The Environmental and Occupational Health concentration provides (1) basic knowledge in ecological, environmental, agricultural and occupational health, as well as toxicology; (2) a broad understanding of relevant problems in the various areas of ecological health, environmental health, occupational health, and safety or toxicology, with particular emphasis on agriculture; and (3) the ability to apply this information to important problems in these areas. This area of study is designed to meet the needs of individuals who work in public health and who desire to broaden their training in environmental health, occupational health, toxicology, and related fields.

12 credit hours from these courses:

|   |          |
|---|----------|
| CPH 590 Elements of Industrial Safety for Health Sciences   | 3 cr hrs |
| CPH 593 Principles of Occupational and Environmental Health | 3 cr hrs |
| CPH 594 Environmental Exposure Assessment                   | 3 cr hrs |
| CPH 597 Principles of Toxicology                            | 3 cr hrs |

## Epidemiology

The Epidemiology concentration provides the basic epidemiological skills and knowledge to prepare students for careers in public health. This area of study is designed to meet the needs of those individuals who currently work in public health as well as those who wish to embark on a career in public health. The concentration provides the tools needed to conceptualize a public health problem, to design an epidemiological study, to collect and analyze data, and to interpret and report the results of a study. The course work and applications focus on the determinants, distribution, dynamics, and etiology of disease in populations and include proposal and report writing, the promotion of good health practices, the prevention of disease, and the evaluation of public health policy and programs.

12 credit hours from these courses

|         |                                 |          |
|---------|---------------------------------|----------|
| CPH 621 | Applied Epidemiology            | 3 cr hrs |
| CPH 623 | Infectious Disease Epidemiology | 3 cr hrs |
| CPH 650 | Biostatistics II                | 3 cr hrs |

Select 3 credits from the list below:

|         |  |          |
|---------|--|----------|
| CPH 620 | Chronic Disease Epidemiology                               | 3 cr hrs |
| CPH 641 | <i>Introduction to Cancer Epidemiology(2 cr hrs) &amp;</i> |          |
| CPH 642 | <i>Cancer Epidemiology in Special Populations(1cr hr)</i>  | 3 cr hrs |
| CPH 646 | Mental Health Epidemiology                                 | 3 cr hrs |

## **Health Policy**

The Health Policy concentration is designed to train policy analysts in health care and public health that can evaluate and analyze the effectiveness of health policy. Students in this concentration will acquire a unique set of skills, knowledge and abilities that will enable them to prioritize health concerns, develop evidence based policies, and address major public health issues.

12 credit hours from these courses:

|   |          |
|---|----------|
| CPH 566 Health Policy                         | 3 cr hrs |
| CPH 564 Health Economics                      | 3 cr hrs |
| CPH 555 Public Health Law                     | 3 cr hrs |
| CPH 567 Health Policy Analysis and Evaluation | 3 cr hrs |

## **Health Promotion**

The Health Promotion concentration prepares students for implementing effective interventions directly with clients, determining a community's health needs, promoting healthy lifestyles, and carrying out health surveys.

12 credit hours from these courses:

|   |          |
|---|----------|
| CPH 534 Interventions in Health Promotion   | 3 cr hrs |
| CPH 536 Public Health Program Planning      | 3 cr hrs |
| CPH 538 Health Promotion Program Evaluation | 3 cr hrs |
| CPH 539 Public Health Leadership & Advocacy | 3 cr hrs |

## **Maternal and Child Health**

The MPH concentration in maternal and child health (MCH) takes a life course approach to the study of MCH through the lifespan, from preconception through pregnancy, infancy, childhood, adolescence, adulthood, and senescence. Such an approach addresses not only the health status at each stage of the lifespan, but the influence that health in one stage has in subsequent stages. A life course approach also considers the determinants of health — biological, behavioral, sociocultural, and environmental — as well as the influence of policies and politics on the health status of mothers, children, adolescents, and families. The MCH concentration focuses on equity, social justice, and human rights.

Students are prepared as MCH professionals in practice (program planning and management, advocacy, policy making) and research that has an impact locally, regionally, nationally, and globally.

12 credit hours from these courses:

|  |          |
|--|----------|
| CPH 546 Introduction to MCH                              | 3 cr hrs |
| CPH 547 Advanced MCH                                     | 3 cr hrs |
| CPH 548 Child and Adolescent Growth and Development      | 2 cr hrs |
| CPH 549 Women's Health                                   | 2 cr hrs |
| CPH 627 Epidemiological Measurements and Research in MCH | 2 cr hr  |

## **Public Health Administration and Policy**

The Public Health Administration concentration prepares students for an administrative, managerial, or supervisory role, with an emphasis on community organizing, policy development, planning, and program evaluation.

12 credit hours from these courses:

|   |          |
|---|----------|
| CPH 565 Health Care Finance                               | 3 cr hrs |
| CPH 562 Human Resource Management in Health Organizations | 3 cr hrs |
| CPH 566 Health Policy                                     |          |
| CPH 580 Health Care Organizational Theory and Behavior    | 3 cr hrs |

To meet elective requirements, select 6 credits from the list below:

|  |          |
|--|----------|
| CPH 563 Strategic Planning and Management in Public Health | 3 cr hrs |
| CPH 564 Health Economics                                   | 3 cr hrs |
| CPH 560 US Healthcare System                               | 3 cr hrs |
| CPH 555 Public Health Law                                  | 3 cr hrs |

## **Public Health Practice**

The Public Health Practice concentration prepares students for the planning, evaluation and management of programs and organizations in public health practice.

12 credit hours from these courses:

|  |          |
|--|----------|
| CPH 536 Health Promotion Program Planning                | 3 cr hrs |
| CPH 538 Public Health Program Evaluation                 | 3 cr hrs |
| CPH 563 Strategic Planning & Management in Public Health | 3 cr hrs |
| CPH 565 Health Care Finance                              | 3 cr hrs |

## **Social Marketing and Health Communication**

The Social Marketing and Health Communication concentration prepares students to design and apply social marketing and health communication processes to public health programs and health behavior interventions.

12 credit hours from these courses:

|  |          |
|--|----------|
| CPH 538 Public Health Program Evaluation                           | 3 cr hrs |
| CPH 541 Introduction to Social Marketing and Health Communication  | 3 cr hrs |
| CPH 542 Applied Social Marketing                                   | 3 cr hrs |
| CPH 543 Health Literacy and Communication for Health Professionals | 3 cr hrs |





# DUAL DEGREES

## **Bachelor of Science in Environmental Studies/Master of Public Health (BSES/MPH)**

### **Overview**

The collaborative program is designed for dedicated undergraduate students who are motivated and willing to take on the challenges and opportunities related to professional education. Therefore, the collaborative BSES and MPH in EOH involves intensive study, a senior thesis and service learning and capstone courses in EOH.

The program of study is guided by the curriculum standards established by the UNL BSES and the UNMC MPH Program. The collaborative program is a 147-155 credit hour undergraduate/professional option that allows eligible students to work toward the EOH concentration in the MPH program requirements while completing their undergraduate degree.

- **Concentration – Environmental and Occupational Health**

### **Admissions**

Students with a sophomore standing and at least 45 hours of completed course work in their undergraduate degree program may apply for admission to the Collaborative BSES and MPH in EOH.

- Official transcripts with a 3.2 or higher grade point average for a minimum of 45 undergraduate hours completed.

### **MPH Program Requirements for Admission:**

The application process to the MPH program is administered by the College of Public Health, and each application shall be required to comply with the application requirements in place at the time of their application.

- Completion of the UNMC MPH degree application.
- Three letters of recommendation from academic or professional references.
- A resume reflecting one or more years of work/volunteer history related to health and/or human services
- A one page personal statement describing the applicant's interest in and potential for contributing to the field of public health and career objectives
  - The personal statement should reflect interest in the Environmental and Occupational Health Concentration, including relevant work-related or educational training background information.

### **EOH Concentration Prerequisites:**

- Successful completion of at least two semesters of biology, two semesters of chemistry, one semester of physics, and a math course that meets college math requirements. Students may apply for admission prior to completion of a physics course. All other prerequisites must be met prior to applying.

### Curriculum

A minimum of 120 credit hours required for BSES degree (Bachelor of Science in Environmental studies)

A minimum of 45 graduate credit hours required for MPH degree (Master of Public Health)

\*Courses that will apply toward both degree programs. A maximum of 18 graduate credit hours from the MPH degree program will be applied towards the BSES degree.

### Sample plan of study based on projected online course offerings.

|  |                                   |   |   |
|--|-----------------------------------|---|---|
| <b>Fall 3</b><br>- NRES 323 Natural Resources Policy<br>- NRES 281 Intro to Water Science<br>- NRES 220 Principles of Ecology (NRES 222 Lab Recommended)<br>- ACE 7 Arts<br>- <b>Emphasis Area Course</b><br><b>*CPH 501 Human Health Behavior (online)</b>  | 3<br>3<br>3<br>3<br><u>3</u>      | <b>Spring 3</b><br>- ENVR 319 Environmental Engagement & Community<br>- ENVR 497 Internship in Environmental Studies<br>- Physics Course<br>- NRES 3XX or 4XX Geospatial Science Course<br>- 3XX/4XX Human Behavior and Law Course<br>- <b>Emphasis Area Course</b><br><b>*CPH 500 Foundations of Public Health (online)</b>            | 2<br><br>1<br><br>4-5<br>3-4<br><br>3<br><u>3</u> |
|  | 15                                |   | 16--18  |
|  |                                   | <b>Summer 3-4</b><br><b>CPH/UNL Grad Elective</b>   | 3   |
| <b>Fall 4</b><br>- ENVR 499a Environmental Studies Senior Thesis I (ACE 10)<br>- 4XX Human Dimensions Course<br>- 2XX/3XX/4XX Management, Leadership and Politics Course<br>- Elective Course<br>- <b>Emphasis Area Course</b><br><b>*CPH 506 Biostatistics I (online)</b><br>- <b>Emphasis Area Course</b><br><b>*CPH 503 Public Health Environment and Safety (online)</b> | 1<br>3<br>3<br>3<br>3<br><u>3</u> | <b>Spring 4</b><br>- ENVR 499b Environmental Studies Senior Thesis II<br>- 4XX Human Dimensions Course<br>- Elective Course<br>- Elective Course<br>- <b>Emphasis Area Course</b><br><b>*CPH 504 Epidemiology in Public Health (online)</b><br>- <b>Emphasis Area Course</b><br><b>*CPH 502 Health Services Administration (online)</b> | 2<br>3<br>2-3<br>3<br>3<br><br><u>3</u>           |
|  | 16                                |   | 16-17   |
| <b>Total Credits: 120 - 128 UNL includes six emphasis area courses from UNMC</b>   |                                   |   |   |
|  |                                   | <b>Summer 4-5</b><br><b>CPH/UNL Grad Elective</b>   | 3   |
| <b>Fall 5</b><br>- CPH 593 Principles of Occupational and Environmental Health (online)<br>- CPH 505 Applied Research in Public Health (online)<br>- CPH 594 Environmental Exposure Assessment (online)<br>-   | 3<br>3<br><u>3</u><br><u>9</u>    | <b>Spring 5</b><br>- CPH 590 Elements of Industrial Safety for Health Sciences (online)<br>- CPH 597 Principles of Toxicology (online)<br>-   | 3<br><br><u>3</u><br><u>6</u>                     |

|  |  |   |   |
|--|--|---|---|
|  |  | <b>Summer 5-6</b><br><b>CPH 528 Service Learning for MPH</b><br><b>CPH 529 Capstone Experience in Public Health</b> | <b>3</b><br><b><u>3</u></b><br><b>6</b> |
|--|--|---|---|

## **Bachelor of Science in Information Technology Innovation/Master of Public Health (BSIT/MPH)**

### **Overview**

The Bachelor of Science in Information Technology Innovation and MPH in Biostatistics (BSIT/MPH) dual degree is a collaborative program between the University of Nebraska Omaha, College of Information Science and Technology and the University of Nebraska Medical Center, College of Public Health.

The program of study is guided by the curriculum standards established by the UNO BITI and the UNMC MPH Program. It is designed as a 151 credit hour undergraduate/professional option that allows eligible students to work toward the Biostatistics concentration in the MPH program requirements while completing their undergraduate degree. Students interested in this option will work closely with their advisor to develop an integrated plan of study.

- **Concentration** - Biostatistics

### **Admissions**

Applicants to the Bachelor of Science in Information Technology/Master of Public Health dual degree program must complete each program's individual application requirements and be admitted to each program separately. To apply for the UNMC MPH program, applicants should contact the CoPH Office of Educational Services. To apply for the University of Nebraska Omaha BSIT program, applicants should contact the UNO Undergraduate Admission Office. An applicant not admitted to both programs may pursue separately the program to which they were admitted.

### **Curriculum**

BSIT/MPH students will enroll in their undergraduate years in the traditional sequence. In the third year of study the BSIT/MPH students will complete 6 credit hours of MPH coursework along with their undergraduate courses. In their 4<sup>th</sup> year of study students will complete fifteen credit hours of MPH courses. The fifth academic year of study will be focused on the completion of 18 credit hours of didactic coursework and six credit hours of Service Learning/Capstone Experience.

## **Master of Public Health/Master of Physician Assistant Studies (MPAS)**

### **Overview**

The Master of Physician Assistant Studies/Master of Public Health (MPAS/MPH) dual degree program aims to provide Physician Assistants with the knowledge, tools, and skills to enhance their public health practice in the community orientation of health services. The focus in COPC constitutes a bridge between individual clinical care and public health in which the focus is the community. It is a practical model for the delivery of health care with a purpose to rationalize, organize and systematize existing health resources through interventions at the community level.

### **Admissions**

Applicants to the MPAS/MPH dual degree program must complete each program's individual application requirements and be admitted to each program separately. To apply for the UNMC MPH program, applicants should contact the CoPH Office of Educational Services. To apply for the UNMC School of Allied Health Professions (SAHP), applicants should contact the UNMC SAHP Admissions Office. An applicant not admitted to both programs may pursue separately the program to which they were admitted.

### **Curriculum**

The MPAS/MPH dual program curriculum consists of 27 hours of Master of Public Health core courses, (including 6 hours of Service Learning and Capstone work), 12-13 hours of concentration courses, 63 hours of MPAS didactic courses and 57 hours of MPAS clinical education/clerkships.

## **Master of Public Health/Master of Social Work (MSW)**

### **Overview**

This program aims to prepare highly skilled professionals who will have competence in both advanced social work practice and in public health. On completion of all requirements, students receive both the MSW and the MPH graduate degrees. The MSW/MPH program consists of 57 credit hours and prepares students to provide the range of social work services, including policy practice and interventions for health and mental health problems, and assume leadership in the public health sector for population-based services, prevention, collaboration, and strategies and policies grounded in basic science. The program meets the educational standards of both accrediting bodies, the CSWE (MSW) and the CEPH (MPH).

### **Concentration:**

- Public Health Administration and Policy

### **Admissions**

Applicants to the Master of Public Health/Master of Social Work dual degree program must complete each program's individual application requirements and be admitted to each program separately. To apply for the UNMC MPH program, applicants should contact the CoPH Office of Educational Services. To apply for the University of Nebraska Omaha MSW program, applicants should contact the UNO Graduate Studies Office. An applicant not admitted to both programs may pursue separately the program to which they were admitted.

### **Curriculum**

| <b>Core Course (39 Credit Hours)</b>   | <b>Credit Hours</b> |
|--|---------------------|
| SOWK 8220 Clinical Social Work with Individuals                                      | 3                   |
| SOWK 8230 Clinical Social Work with Groups   | 3                   |
| SOWK 8270 Social Work Practice with Sexual Concerns                                  | 3                   |
| SOWK 8290 Social Work Practice in Health/ Mental Health                              | 3                   |
| SOWK 8686 Medical and Psychosocial Aspects of Alcohol/Drug Use and Addition          | 3                   |
| SOWK 8940 Evaluation of Social Programs  | 3                   |
| SOWK 8190 Research and Computer Applications (meets CPH 505 MPH requirement)         | 3                   |
| CPH 500 Foundations of Public Health   | 3                   |
| CPH 501 Health Behavior  | 3                   |
| CPH 502 Health Services Administration   | 3                   |
| CPH 503 Public Health, Environment, & Society  | 3                   |
| CPH 504 Introduction to Epidemiology   | 3                   |
| CPH 506 Biostatistics I  | 3                   |
| <b>Concentration Courses (12 Credit Hours)</b>                                       |                     |
| SOWK 8510 Supervision & Personnel Administration (meets CPH 562 MPH Requirement)     | 3                   |
| SOWK 8540 Social Welfare Planning (meets MPH CPH 563 MPH Requirement)                | 3                   |
| CPH 580 Health Care Organizational Theory and Behavior                               | 3                   |
| CPH 565 Health Care Finance  | 3                   |
| <b>Service Learning/Capstone Experience &amp; Practicum Courses (6 Credit Hours)</b> |                     |
| SOWK 8400 Advanced Practicum I (meets CPH 528 MPH requirement)                       | 3                   |
| SOWK 8410 Advanced Practicum II (meets CPH 529 MPH requirement)                      | 3                   |
| <b>Total Credit Hours</b>  | <b>57</b>           |

## **Medical Doctor (MD)/Master of Public Health Dual Degree**

### **Overview**

The MD/MPH dual degree program at the UNMC College of Public Health and College of Medicine is designed for students who envision a medical career that incorporates public health and medicine. The MD/MPH program prepares physicians for practice in today's health care environment. This flexible program combines traditional medical preparation with a focus in one of the concentration areas in the MPH degree program. In addition, students are encouraged to pursue programs of study and practice placements that allow the exploration of the multifaceted relationships between medicine and population-focused public health disciplines.

### **Admissions**

Applicants to the MD/MPH dual degree program must complete each program's individual application requirements and be admitted to each program separately. To apply for the UNMC MPH program, applicants should contact the CoPH Office of Educational Services. To apply for the UNMC Medical School, applicants should contact the UNMC College of Medicine Admissions Office. An applicant not admitted to both programs may pursue separately the program to which they were admitted.

### **Curriculum**

MD/MPH students will enroll in their medical school M1, M2 and M3 years in the traditional sequence. In the fourth year of study the MD/MPH students will complete an "MPH Year" in which they will sabbatical from their medical school course work and complete 36 credit hours of MPH course work. In their 5<sup>th</sup> year of study (traditional M4 year) the MD/MPH students will complete three to six credit hours of MPH concentration and/or elective courses and the remaining six credit hours of the Service Learning/Capstone Experience. The MPH and MD programs will share six credit hours of electives and 6 MPH credit hours or eight COM credit hours with the SL/CE (Service Learning/Capstone Experience) replacing two traditional fourth year electives (eight weeks).

## **Juris Doctorate/Master of Public Health Program**

The JD/MPH program is designed for students who desire specialized expertise and training in public health law. Public health, public policy, and biomedical ethics issues are at the forefront of American's unresolved social problems. Ongoing efforts at health care reform by policymakers are expected to increase demand for lawyers with health care expertise to generate legal solutions to issues of health care access, quality, patient protection, and privacy. The built environment is also emerging as a significant factor in health prompting fresh attention to city planning and land use regulation. Occupational injuries continue to plague American's workforce. Environmental degradation threatens the health of future generations. Lawyers play a central role in society's approach to these issues. However, their effectiveness may be limited by inadequate knowledge of public health and health care systems. Similarly, public health professionals often have a rudimentary understanding of the legal systems.

A dual JD/MPH degree program can prepare graduates for leadership in the myriad of public health issues confronted by society. Graduates of this dual degree program will be equipped to work in a variety of public interest arenas such as governmental agencies, legislative bodies and advocacy groups. They may also seek commercial or industrial employment, in hospitals or manufacturing settings, or in universities.

### **Curriculum Outline**

A student in the dual degree program must successfully complete the first-year curriculum at the College of Law (COL) beginning in the fall semester of the academic year for which the student is admitted before taking any public health courses. The student may then take both law and public health courses in a sequence that meets the approval of the COL and the CPH.

The degree programs as they stand alone total 138 credit hours (JD=93, MPH=45). The JD/MPH is a 123 credit hour program that allows students to share 15 credit hours between the two programs to meet the academic requirements of each individual program.



## **Master of Business/Master of Public Health**

The Master of Business Administration and Master of Public Health dual degree program (MBA/MPH) is designed for students who desire specialized expertise and training in public health management and administration. Graduates will be equipped to work in a variety of public interest arenas, commercial or industrial employment, hospitals or insurance settings, or in universities.

Depending upon the student's chosen area of specialty, graduates will be prepared to:

- Manage and administer public health or health care organizations and agencies;
- Assess the methodology, execution, analysis and conclusions of scientific studies;
- Use empirical data to analyze the efficacy and feasibility of health policies and health care management decisions;
- Consult with organizations and agencies on best practices for management and administration in public health or health care settings.

MPH Concentrations areas:

- Health Policy
- Public Health Administration
- Social Marketing and Health Communication

## **Curriculum Outline**

A student in the dual degree program may take both business and public health courses in a sequence that meets the approval of the College of Business Administration and the College of Public Health. The College of Business Administration normally requires 36 credit hours for the MBA degree. Additionally, students with non-business degrees may be required to complete foundation courses, including BSAD 8110 – Accounting and Financial Fundamentals (or ACCT 2010 and ACCT 2020); and BSAD 8180 – Analytical Foundations of Economics (or ECON 2200 and ECON 2220); and BSAD 3160 – Managerial Statistics for Business or one semester of statistics which will be satisfied by CPH 506/BIOS 806 – Biostatistics I. The College of Public Health normally requires 45 hours for the MPH degree. Students select an MPH area of concentration that best suits the student's interest with the knowledge that some prerequisites courses may be required. The MPH requires 12 hours of concentration courses, 6 hours of elective courses, and 6 hours of service learning/capstone. The concentrations in the MPH program available for the MBA/MPH program are: Public Health Administration, Health Policy, & Social Marketing and Health Communication. The Service Learning (three credit hours) and Capstone Experience (three credit hours) will follow the guidelines of the UNMC MPH Program as described in the College of Public Health Service-Learning/Capstone Experience Handbook. The objectives, components, details of assignment, advisors, timelines, and evaluation of student performance are to be formulated later by the student and his or her Capstone Committee.

## **Doctor of Pharmacy (PharmD)/Master of Public Health Dual Degree**

### **Overview**

The dual PharmD and MPH Program provides students with the knowledge, tools, and skills to enhance their public health practice in the community. The dual program curriculum consists of MPH core courses, MPH concentration courses, PharmD courses and PharmD clinical education. The anticipated audience for this program is students who wish to seek careers in state and local health departments, pharmaceutical industry, managed care organizations, and academia. Other anticipated audience may include students who are interested in both areas and wish to integrate their public health and pharmacy practice. Students in the dual degree program will be able to obtain both degrees in less time than completing the two degrees separately.

### **Admissions**

Applicants to the PharmD/MPH dual degree program must complete each program's individual application requirements and be admitted to each program separately. To apply for the UNMC MPH program, applicants should contact the CoPH Office of Educational Services. To apply for the UNMC Pharmacy School, applicants should contact the UNMC College of Pharmacy Admissions Office. An applicant not admitted to both programs may pursue separately the program to which they were admitted.

### **Curriculum**

The PharmD curriculum consists of didactic courses and pharmacy practice experiences. A total of 156.5 semester credit hours over four years are required for graduation: 109 didactic (includes 10 hours of professional electives) and 47.5 experiential (7.5 introductory pharmacy practice experiences [IPPE] and 40 advanced pharmacy practice experiences [APPE]). The IPPE requirements include Community Pharmacy Clerkship (120 hours [3 credit hours]), Institutional Pharmacy Clerkship (120 hours [3 credit hours]), Drug Information Clerkship (20 hours [0.5 credit hours]), and Patient Care Activities (40 hours [1 credit hour]). The APPE is the required 40 semester hours in length (1600 clock hours) and represent basic level clerkships (Level I) and more advanced clerkship (Level II). A total of 10 four week APPEs are required for the student and is a mixture of required (6 clerkships) and elective (4 clerkships) clerkships.

The MPH curriculum currently consists of 45 semester hours of academic work. Coursework is divided into a core public health curriculum (21 hours), courses in the area of concentration (12 hours), electives (6 hours), and Service-Learning and Capstone Experience (6 hours). All students would pursue one of the available concentrations within the MPH Program.

Students from the two disciplines will be integrated in the MPH courses and projects, and will work as teams in the completion of projects and clinical education. Some of the courses taught in each program will apply as dual credit. It is anticipated that the dual degree program will add about two semesters of course work to the PharmD program length. Students will participate in clinical activities every week while they are completing their MPH coursework. The descriptions of the PharmD courses required for the dual degree (at the end of this proposal) clearly suggest the congruence between the MPH and PharmD curriculum content.

# MASTER OF SCIENCE IN EMERGENCY PREPAREDNESS: GENERAL OVERVIEW

## Overview

The Master of Science (MS) in Emergency Preparedness is designed to prepare professionals in a world where emergency preparedness and response skills are essential to the public health infrastructure. Events explored include naturally occurring disasters, intentional acts of terrorism, and new emerging infectious disease threats. The course curriculum is designed to be reflective and inclusive of current and nationally endorsed competencies in emergency preparedness leadership, communication, information management, practice improvement and planning, and worker health and safety.

## Degree Requirements

The MS in Emergency Preparedness is designed as a 36 credit hour program that can be completed in two academic years as a full-time student or a part-time student can take up to five years to complete. Students enrolling in the MS in Emergency Preparedness will choose to enroll in either a practice or academic track.

## Program of Study

The M.S. in Emergency Preparedness is offered as two tracks (1) a practice based track or (2) an academic based track. Students must choose only one of the tracks and the curriculum is as follows:

### Practice Track = 36 Total Credit Hours

Required Courses = 21 credit hours

- HPRO 810: Emergency Preparedness: Prevent
- EPI 811: Emergency Preparedness: Protect
- HPRO 812: Emergency Preparedness: Respond
- HPRO 813: Emergency Preparedness: Respond and Recover
- HPRO 830: Foundations of Public Health
- EPI 820: Epidemiology in Public Health

CRCJ 8230: Terrorism - UNO

Elective Requirements = 9 credit hours

Master's Thesis = 6 credit hours

### Academic Track = 36 Total Credit Hours

Required Courses = 27 credit hours

- HPRO 810: Emergency Preparedness: Prevent
- EPI 811: Emergency Preparedness: Protect
- HPRO 812: Emergency Preparedness: Respond
- HPRO 813: Emergency Preparedness: Respond and Recover

HPRO 830: Foundations of Public Health  
EPI 820: Epidemiology in Public Health

HPRO 805: Applied Research in Public Health  
BIOS 806: Biostatistics I  
CRCJ 8230: Terrorism - UNO  
Elective Requirements = 3 credit hours  
Master's Thesis = 6 credit hours

## **Thesis**

The thesis proposal must be approved by the student's Advisory Committee. The thesis work should reveal a capacity to carry on independent study or research and should demonstrate the student's ability to use the techniques employed in the field of emergency preparedness.

## **Advisor and Supervisory Committee**

Each student will be advised by a two – three member Advisory Committee.

Advisory Committee has the following principal responsibilities:

- a. Assist the student in developing a program of study.
- b. Advise the student regarding research direction and thesis preparation.
- c. Serve as the Examination Committee for the Comprehensive and Final Oral Exam, i.e., thesis defense

# DOCTOR OF PHILOSOPHY: GENERAL OVERVIEW

## PURPOSE AND PROGRAM DESIGN

The purpose of the PhD programs is to prepare students to become ethically, culturally, and scientifically competent researchers and educators in public health. The programs promote inter- and trans-disciplinary education, research, and service activities that are relevant to the community and population that we serve. An academic department hosts and operates each of the three PhD programs. In each department, a Graduate Committee, chaired by the Graduate Program Director, develops and implements curriculum, makes admission decisions, advises students, and monitors student progress.

| <b>Degree Program</b>   | <b>Sponsoring Department</b>                         |
|---|--|
| Biostatistics   | Biostatistics  |
| Epidemiology  | Epidemiology   |
| Environmental Health, Occupational Health, and Toxicology PhD | Environmental, Agricultural, and Occupational Health |
| Health Promotion and Disease Prevention Research PhD          | Health Promotion, Social and Behavioral Health       |
| Health Services Research, Administration, and Policy PhD      | Health Services Research and Administration          |

The overall coordination of CoPH PhD programs is by the Director, Doctoral Programs. The UNMC Graduate Studies Office has specific requirements for admission, academic standing, program requirements, comprehensive examinations, dissertations, candidacy, and graduation. Please see the UNMC Graduate Bulletin for details at <http://www.unmc.edu/gradstudies/105.htm>.

# DOCTOR OF PHILOSOPHY BIOSTATISTICS

## **Program Purpose**

The Ph.D. in Biostatistics is designed to provide students with the instruction and research experience necessary to become high quality academic faculty members, researchers and leaders in biomedicine and public health throughout Nebraska, the country, and the globe. They may also choose careers as scientists in government and private research agencies. The curriculum design of this program is consistent with the core competencies of Biostatistics followed by most major Ph.D. programs in the nation, and strongly emphasizes the acquisition of applied skills as well as the theoretical mathematical foundations of Biostatistics. The primary focus will be in the following areas of Biostatistics: clinical trials; study design; survival analysis; generalized linear models; longitudinal analysis; survey methodology; and analysis of microarray gene-expression data and other high-dimensional data. However, as the program grows, students may develop other lines of Biostatistics research in biomedicine and public health at the discretion of their dissertation committee.

## **Program Competencies**

I. Serve as an expert biostatistician on a collaborative team of investigators addressing a research question

- a) Acquire knowledge and skills in advanced statistical methodologies to collaborate without supervision with research investigators
- b) Formulate a research question in statistical terms
- c) Communicate effectively with biomedical and public health experts, relying upon a basic understanding of human health and disease and the related basic sciences
- d) Construct an appropriate study design to address a research question, and determine an associated sample size based on statistical power considerations
- e) Become proficient in at least one commonly used statistical software package
- f) Examine data quality and verify data values to create consistent, reliable information
- g) Protect information from unauthorized access and use
- h) For a particular data set, when addressing a biomedical or public health question:
  - i. Choose and justify an appropriate statistical model
  - ii. Verify the model assumptions, implement the model, and correctly interpret the results of the analysis

- iii. Document the analysis and results in a reproducible way
- iv. Present in writing and orally a summary of the study results and their interpretation

## II. Successfully conduct and disseminate original research on the theory and methodology of biostatistics

- a) Critically review and interpret the statistical literature relevant to a particular methodological area
- b) Identify important methodological problems (e.g., through participation in collaborative research)
- c) Formulate methodological questions and develop novel statistical methods addressing these questions
- d) Determine the statistical properties of new methods using mathematical and computer tools
- e) Apply innovative statistical theory and methods to gain novel insights into biomedical or public health-related questions
- f) Demonstrate deep knowledge of (at least) one statistical area, and general knowledge in the most important fields of biostatistics
- g) Write and submit for publication peer-reviewed article(s) that effectively communicate novel theoretical and/or methodological developments
- h) Clearly present biostatistical research findings in a research seminar

## III. Effectively teach biostatistics to biostatistical and non-biostatistical audiences

- a) Identify biostatistical skills needed by a group of students
- b) Communicate to students the importance and utility of the material and an appreciation of it
- c) Demonstrate a commitment to student learning
- d) Communicate clearly and effectively in oral and written materials

## IV. Develop a public health perspective on research

- a) Recognize the causes of morbidity and mortality and the strategies for promoting health and preventing disease and disability in a population
- b) Identify the scientific methods used in public health research and practice

- c) Effectively translate statistical ideas and concepts to public health collaborators

V. Demonstrate knowledge and expertise in a cognate field other than biostatistics

- a) Identify the quantitative aspects of important scientific problems in an area of biomedical or public health research outside of biostatistics/statistics (i.e., in a cognate field) and develop innovative biostatistical methodology to address the problems
- b) Demonstrate proficiency in the language of the cognate field
- c) Review and evaluate the use of biostatistical methods in the cognate field of study
- d) Engage in collaborations across fields and disciplines related to the cognate field

**Admission Requirements**

Admission to the program is governed by the requirements stated in the UNMC Graduate Studies Bulletin. Application materials should be submitted to the Office of Graduate Studies.

Requirements:

1. A minimum cumulative grade-point average of 3.00/4.00 on all relevant graduate course work is required for admission.
2. A MS, MA in Biostatistics/Statistics or equivalent degree (e.g. Biostatistics MPH plus courses in mathematical statistics at the Master's level, and matrix algebra and mathematical analysis at the Bachelor's level [equivalent to UNL STAT 882, STAT 883, MATH 314, and MATH 325]) is required for admission.
3. A minimum combined score of 1000 on the verbal and quantitative sections of the Graduate Record Exam is required.
4. International students: TOEFL of 550 (paper), 213 (computer) or 80 (internet).

Application materials must include:

1. Official copy of transcripts from postsecondary education
2. GRE scores
3. TOEFL scores
4. Letter of intent of 750–1,000 words that supports the applicant's interest and career goals



5. At least three, but no more than four, letters of recommendation.
  - a. At least two of these letters must be from faculty members from the applicant's previous program who can attest to the applicant's ability to pursue successfully a PhD program in Biostatistics.
  - b. The remaining letters may be academic or professional references.

The above admission requirements are minimal, and meeting them does not guarantee admission to the PhD program in Biostatistics.

## Degree Requirements

### Program of Study for PhD in Biostatistics<sup>1</sup>

| Courses   | Credits   |
|---|-----------|
| Required  | 24        |
| EPI 820 Epidemiology in Public Health 3 credits   |           |
| HPRO 830 Foundations of Public Health 3 credits   |           |
| <b>BIOS 918 Biostatistical Linear Models: Theory and Application 3 credits</b>                                |           |
| <b>BIOS 924 Biostatistical Theory and Models for Survival Data 3 credits</b>                                  |           |
| <b>BIOS 925 Theory of Generalized Linear and Mixed Models in Biostatistics 3 credits</b>                      |           |
| <b>STAT 980 Advanced Probability Theory (UNL) 3 credits</b>   |           |
| <b>STAT 982 Statistical Theory I (UNL) 3 credits</b>  |           |
| <b>STAT 983 Statistical Theory II (UNL) 3 credits</b>   |           |
| Cognate Area  | 6         |
| Electives <sup>2</sup><br>(Must take 18 credits from the courses below or graduate-level courses as approved) | 18        |
| BIOS 810 Intro to SAS Programming 3 credits   |           |
| BIOS 818 Biostatistical Methods II 3 credits  |           |
| BIOS 823 Categorical Data Analysis 3 credits  |           |
| BIOS 824 Survival Data Analysis 3 credits   |           |
| BIOS 825 Correlated Data Analysis 3 credits   |           |
| BIOS 835 Design of Medical Studies 3 credits  |           |
| <b>BIOS 921 Advanced Programming for SAS 3 credits</b>  |           |
| <b>BIOS 935 Semiparametric Methods for Biostatistics 3 credits</b>  |           |
| <b>BIOS 999 Doctoral Dissertation</b>   | <b>12</b> |
| Total Program Hours   | 60        |

<sup>1</sup>Students admitted to the PhD in Biostatistics must have a previously earned Master's degree in mathematics, statistics, or a related field.

<sup>2</sup>All approved elective courses are graduate-level 800/900 courses. Academic advisors approve student's choice of electives.

# DOCTOR OF PHILOSOPHY ENVIRONMENTAL HEALTH, OCCUPATIONAL HEALTH AND TOXICOLOGY

## **Program Purpose**

The Environmental Health, Occupational Health and Toxicology graduate program is an intercampus, multidisciplinary graduate program leading to a PhD degree in environmental health, occupational health, and toxicology. This program provides students with the knowledge base, laboratory skills, and problem-solving abilities to become independent, innovative investigators using state-of-the-art approaches to address scientific problems in the fields of environmental health, ecological health, occupational health and safety, and toxicology.

A unique aspect of the program is its focus on the impact of agricultural practices on human and environmental health. In states like Nebraska, where the economy is primarily based on agriculture, this focus will provide effective training for students interested in agricultural issues.

Specific objectives of this graduate education and training program are to provide students with: (1) basic knowledge in ecological, environmental, agricultural, and occupational health, as well as toxicology; (2) a broad understanding of relevant problems in the various areas of ecological health, environmental health, occupational health and biomechanics, ergonomics, or toxicology, with particular emphasis on agriculture; and (3) the ability to apply this information to important scientific questions and solve problems in these areas. Graduates of this program will be well equipped to pursue careers in environmental health, occupational health, toxicology, and related fields.

## **Program Competencies**

Upon graduation, a student with a PhD in the Environmental Health, Occupational Health and Toxicology Program will be able to:

1. Synthesize, organize, and present, both orally and in writing, a broad range of qualitative and quantitative information and analyses of environmental, occupational, and toxicology topics, issues, and research to academic, professional, and public audiences.
2. Develop and conduct original research in environmental health, occupational health, and toxicology leading to advancing the field in methodology and field-driven concepts.
3. Use and manipulate knowledge obtained from the scientific literature, germane to the field of interest, to write competitive grant proposals.

4. Demonstrate knowledge, sensitivity, and skill in communicating and working with diverse communities, populations, and cultures on critical environmental, occupational, and toxicology problems and solutions.
5. Develop plans to investigate health issues and implement policies and programs to mitigate public health risks.
6. Identify, assess, control, and prevent various environmental and occupational hazards that are significant risks to human health and safety.
7. Formulate hypotheses, and design experiments to test such hypotheses, aimed at advancing the body of knowledge surrounding environmental, occupational, and toxicology issues.
8. Foster collaboration and cooperation among various stakeholders, interest groups, and populations to raise awareness and achieve environmental, occupational, and toxicology objectives and benefits.
9. Synthesize and leverage economic, cultural, political, and social factors for the creation, development, and successful implementation of environmental, occupational, and toxicology initiatives.
10. Understand risk analysis, assessment, communication, and management.
11. Understand the complex relationship between what is ethical and what is legal in the realm of environmental, occupational, and toxicology research, and appropriately use this knowledge as a scientist and professional.

## **Track Competencies**

### **Environmental and Occupational Hygiene Track**

1. Critically evaluate characteristics and trends in U.S. agriculture.
2. Integrate and analyze available data resources on agricultural production and populations to reduce agricultural and environmental injuries and illnesses.
3. Develop and critique intervention strategies relative to agriculture and the environment.
4. Critically evaluate agricultural safety programs and their strengths and weaknesses.
5. Critically evaluate data to propose strategies to reduce environmental health hazards.
6. Categorize environmental factors that affect the health of a community, including the biological effects of these exposures.
7. Critically evaluate data to develop methods of risk assessment and control.
8. Develop strategies to implement public health policy to control risk.
9. Identify and apply effective risk communication strategies and techniques to solve environmental health problems.
10. Critically synthesize current literature to formulate research questions.
11. Apply risk assessment and control methods in a field study.
12. Design and execute a field study of occupational and environmental health hazards.

### **Occupational Biomechanics Track**

1. Apply the principles of biomechanical analysis to common work tasks.
2. Integrate basic anatomical and mechanical principles to the analysis of human movement in common work tasks.
3. Critically evaluate biomechanical data of an individual during common work tasks.
4. Utilize instrumentation and techniques to measure and analyze movement to address public health issues and to conduct occupational biomechanical research.
5. Critically evaluate the need for and the limitations of occupational biomechanics in the analysis of standards for manual materials handling.
6. Execute appropriate biomechanical principles to current models and guidelines used in occupational ergonomics.
7. Critically evaluate data to propose future research in the development of new models and ergonomic guidelines.
8. Critically analyze and evaluate performance in occupational settings to avoid injury and improve performance.
8. Integrate and apply appropriate theories to describe and analyze human movement, with emphasis on variability of human movement, the acquisition of motor skills, and external factors that can affect motor performance.
9. Develop and apply appropriate experimental and clinical tools and procedures to assess motor control.
10. Articulate how the nervous system is associated with motor control and its functions.
11. Critically evaluate how attentional processes can influence motor performance.

### **TOXICOLOGY TRACK**

1. Assess responses to environmental and occupational toxins.
2. Implement dose-response characteristics to correlate a chemical exposure with a toxic response.

3. Predict the severity of a toxic response to a particular toxicant by using the principles of absorption and distribution
4. Critically analyze data to correlate targeted organ toxicity with a specific toxicant exposure.
5. Implement epidemiological data and risk assessment protocols to predict the toxic responses to environmental and workplace exposures.
6. Assess government regulatory policies and their impact on industries and on human health.
7. Critically evaluate the scientific toxicological literature.
8. Formulate appropriate research questions based on critical evaluation of scientific literature.
9. Develop doctoral-level proficiency in oral and written assessment.
10. Design experimentation to determine the relationship between a specific chemical exposure and a toxic response.

## Admission Requirements

Admission to the program is governed by the requirements stated in the UNMC Graduate Studies Bulletin. Application materials should be submitted to the Office of Graduate Studies. Students completing bachelor's or master's degrees in chemistry, biology, biochemistry, biomechanics, or related disciplines are encouraged to apply for admission.

Suggested Scores:

1. GPA minimum: 3.0
2. GRE: Verbal minimum: 143 on the current scale/350 on the prior scale

Quantitative minimum: 148 on the current scale/600 on the prior scale

Applicants to the Environmental Health, Occupational Health and Toxicology (EHOHT) Doctoral Program may request a waiver from the GRE if they have been conferred a graduate or terminal degree (for example M.S., M.A., M.D., PharmD., Ph.D.), from a regionally-accredited U.S. institution of higher education. Applicants are advised that the GRE waiver is not automatic and an approved GRE Waiver application does not guarantee later acceptance into the program. To apply for the GRE waiver, applicants will need to submit the following items via email to [scherek@unmc.edu](mailto:scherek@unmc.edu):

- An email requesting a waiver
- Scanned copies of all college or university transcripts (official or unofficial are acceptable)
- A current resume or Curriculum Vitae

Required score:

Graduate Studies requirements for TOEFL - Applicants from foreign countries where English is not the primary language must present official scores on the Test of English as a Foreign Language (TOEFL) and official scores on the Graduate Record Examination. A score of at least 550 on the paper-based TOEFL, 213 on the computer-based TOEFL, or 80 on the internet-based TOEFL is required.

Application materials must include:

Letter of intent that supports the applicant's interest area and goals, and:

1. Three letters of recommendation.
2. Curriculum vitae or resume.
3. Transcripts from postsecondary education.\*
4. GRE scores.
5. TOEFL scores (if applicable).

**\*FOREIGN TRANSCRIPTS:** Official transcripts or mark sheets of college level work not in English or in the standard U.S grading scale must be sent to a credential evaluation service for translation. The transcript evaluation must be a course by course evaluation that identifies and describes each diploma or certificate with periods of education and equivalency of each document. The preferred services are: World Education Services (WES) and Educational Credential Evaluators, Inc. (ECE). Other services approved by the National Association of Credential Evaluation Services (NACES) will also be accepted. Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If photo static copies are provided, the copies must be certified after duplication as true copies of the original document. Transcripts should clearly indicate the grades received or the standing attained on required examinations. If transcripts do not show the degree earned and the date on which it was conferred official degree statements must also be provided.

### **Comprehensive Exam**

The comprehensive examination consists of a written and an oral component. The examination serves several purposes: (1) it tests the breadth and depth of a student's knowledge of environmental and occupational health issues; (2) it provides valuable proposal-writing experience; and (3) it trains students to effectively communicate their ideas to their peers. Students are required to write a National Institutes of Health (NIH), R01 research proposal. Students who do not have prior experience in writing grants are strongly encouraged to take EPI 998: "Research Proposal Development" (2 credit hours). The proposal can be in an area outside of the student's dissertation or in an area similar to the dissertation, but with different specific aims from the dissertation.

The student will first write a specific aims page in consultation with their dissertation advisor. This specific aims page must be approved by the supervisory committee, in writing, before the student develops the rest of the proposal. The student is expected to develop the full proposal independently. The dissertation advisor is not expected to read and provide feedback at this stage. The full proposal should include the following sections: specific aims, research strategy (significance, innovation, and approach), a timeline, and references. Students are not required to submit a budget. The specific aims should not exceed one page and the research strategy should not exceed twelve pages (these are the current NIH requirements and may be subject to change). The timeline and references are not included in the page limit. It is recommended that the proposal be written in Arial font 11 with 0.8" on the top of the page and 0.5" margins elsewhere. Approximately no less than two weeks after the student submits the full proposal, a supervisory committee meeting will be convened to discuss the student's performance. The committee will evaluate the novelty of the proposed study, the quality of writing, and the soundness of the scientific principles. The committee will also determine if the student was able to satisfactorily answer the committee's questions. The committee votes to pass or fail the student at this meeting. It only takes one non-affirmative vote to fail the student. The committee is expected to provide students with detailed feedback before or shortly after the committee meeting. A student who passes the written and oral components will be allowed to advance to candidacy. A student who fails will be allowed to repeat the examination. This may include significantly revising or



redoing the full proposal and repeating the oral examination. The repeated oral examination will take place in front of the entire faculty in the Department of Environmental, Agricultural, and Occupational Health. Faculty who attend the repeated oral examination will be invited to provide feedback to the supervisory committee on the student's performance.

To ensure that the student is adequately prepared for the reexamination, it is strongly recommended that exam is retaken no sooner than six months after receiving the regressive grade. A student who fails a second time will be dismissed from the program.

## Degree Requirements

Program of Study for PhD in Environmental Health, Occupational Health, and Toxicology<sup>1</sup>

| Courses  | Credits by Track |           |           |
|--|------------------|-----------|-----------|
|  | EOH              | OBM       | TOX       |
| Required   | 23               | 25        | 22        |
| EPI 820 Epidemiology in Public Health                        | 3                | 3         | 3         |
| HPRO 830 Foundations of Public Health                        | 3                | 3         | 3         |
| BIOS 806 Biostatistics I                                     | 3                | 3         | 3         |
| BIOS 808 Biostatistics II                                    | 3                | 3         | 3         |
| <b>ENV 970 Seminar</b> <sup>2</sup>                          | <b>1</b>         | <b>1</b>  | <b>1</b>  |
| ENV 810 Principles of Occupational & Environmental Health    | 3                |           |           |
| ENV 816 Environmental Exposure Assessment                    | 3                |           |           |
| <b>EPI 945 Epidemiologic Research Methods</b>                | <b>4</b>         |           |           |
| ENV 850 Occupational Biomechanics                            |                  | 3         |           |
| PE 8400 Motor Learning (University of Nebraska at Omaha/UNO) |                  | 3         |           |
| PE 8410 Motor Control (UNO)                                  |                  | 3         |           |
| PE 8450 Advanced Biomechanics (UNO)                          |                  | 3         |           |
| BRTP 821 Macromolecular Structure and Function <sup>3</sup>  |                  |           | 3         |
| ENV 888 Principles of Toxicology                             |                  |           | 3         |
| <b>ENV 950 Advanced Toxicology</b>                           |                  |           | <b>3</b>  |
| Plus <u>one</u> of the following:                            |                  |           | 2-3       |
| BRTP 822 The Cell and Gene Regulation                        |                  |           | 3         |
| BRTP 823 Molecular Cell Biology                              |                  |           | 2         |
| BRTP 824 Cell Signaling                                      |                  |           | 3         |
| Approved Elective Courses <sup>4</sup>                       | 6                | 6         | 6         |
| <b>ENV 999 Doctoral Dissertation</b>                         | <b>16</b>        | <b>16</b> | <b>16</b> |
| Total Program Hours  | 45               | 47        | 46-47     |

<sup>1</sup>The program considers applications from students with a Master's degree or exceptional candidates with a Bachelor's degree.

<sup>2</sup>ENV 970 is a discipline-specific seminar that meets once a week for one hour for a semester.

<sup>3</sup>The BRTP courses are changing in fall 2016 to IGPBS courses covering the same material.

<sup>4</sup>Elective courses are graduate-level 800/900 courses. Academic advisors approve appropriate courses for students.

# DOCTOR OF PHILOSOPHY EPIDEMIOLOGY

## **Program Purpose**

The Ph.D. in Epidemiology is offered through the Department of Epidemiology, College of Public Health. The Ph.D. in Epidemiology is a research-oriented program whose objective is to train outstanding scholars, researchers, and leaders. Students are provided with a broad foundation of key concepts in epidemiology and focused research training in a specific substantive area. The program prepares graduates for positions in government agencies, education, and the private sector in Nebraska, as well as nationally and internationally.

The program of study consists of at least 48 credits beyond the Master's degree, including a common core of methods courses, elective courses oriented toward the student's area of research specialization, and an original dissertation, part of which must be submitted for publication in a peer-reviewed scientific journal. The Ph.D. program is intended for students with a prior Master's degree in epidemiology or a closely related field.

## **Admission Requirements**

Admission to the program is governed by the requirements stated in the UNMC Graduate Bulletin. Application materials are to be submitted to the Office of Graduate Studies.

The following are the requirements for prospective students seeking admission to the Ph.D. epidemiology program:

- Master's degree in epidemiology or related field
- A statement of interest and career goals
- 3 recommendation letters (At least one from a faculty member in the applicant's previous program)
- Academic transcripts from previous graduate and undergraduate education programs
- GRE score (Under special circumstances, the GRE score may be waived. The decision on waiver will be made by the Epidemiology department's graduate program committee)
- TOEFL score (The TOEFL score is required for international students whose first language is not English. The TOEFL can be waived if a student has obtained a degree in an English-speaking institution)

The standards for the above criteria are determined by the Epidemiology Department's Graduate Program Committee, taking into account the prospective students' academic qualifications and professional experiences prior to admission. The criteria set by the Department are in addition to the minimum standard that is required by the UNMC's graduate studies admission guidelines ([http://www.unmc.edu/gradstudies/admission\\_requirements.htm](http://www.unmc.edu/gradstudies/admission_requirements.htm)).

## **Program Competencies**

Upon graduation, a student with a Ph.D. in Epidemiology is expected to be competent in the following:

### **I. Recognition of Public Health Problems**

1. Recognize public health problems and the epidemiologic role in addressing them

### **II. Problem Conceptualization and Critical Thinking**

2. Develop comprehensive knowledge of epidemiologic concepts
3. Critically evaluate scientific literature using epidemiologic principles and methods
4. Generate and evaluate hypotheses for epidemiologic research

### **III. Study design / methodology**

5. Identify and discuss advantages and limitations of epidemiologic study designs, including practical aspects of their use and trade-offs in particular studies
6. Independently design and implement epidemiologic investigations to answer specific research questions
7. Recognize potential sources of bias in estimating population parameters, and implement strategies to control biases and reduce random error
8. Identify appropriate data sources to answer specific research questions
9. Develop and manage data collection procedures for new and existing data sources

### **IV. Data analysis and interpretation**

10. Critically evaluate reports of epidemiologic studies
11. Select and apply appropriate statistical approaches to analyze epidemiologic data
12. Use the results of epidemiologic data analyses to make causal inferences

### **V. Ethics/ policy**

13. Understand and apply principles for ethical study conduct and treatment of research participants
14. Know and apply principles of publication ethics related to conflict of interest, authorship, and falsification of data
15. Bring epidemiologic perspectives to the development and analysis of public health policies

### **VI. Other Professional Skills**

16. Communicate epidemiologic concepts and findings orally and in writing in accordance with professional standards to professional audiences, policy makers, and the general public
17. Demonstrate knowledge, communication skills, and respect for students necessary to effectively teach epidemiology
18. Synthesize and communicate epidemiologic concepts, information from the scientific literature and original ideas to develop a competitive grant proposal

## Degree Requirements

Program of Study for PhD in [Epidemiology](#)<sup>1</sup>

| Courses  | Credits   |
|--|-----------|
| <b>Required</b>  | <b>24</b> |
| EPI 821 Applied Epidemiology 3 credits   |           |
| HPRO 830 Foundations of Public Health 3 credits  |           |
| BIOS 806 Biostatistics I 3 credits   |           |
| BIOS 810 Introduction to SAS Programming 3 credits   |           |
| <b>EPI 905 Critical Evaluation of Epidemiologic Research 3 credits</b>                       |           |
| <b>EPI 932 Epidemiology and Pathophysiology of Disease 3 credits</b>                         |           |
| <b>EPI 945 Epidemiologic Research Methods 4 credits</b>                                      |           |
| <b>EPI 970 Epidemiology Doctoral Seminar - 1 credit each semester, must take 2 semesters</b> |           |
| <b>Selective Courses</b>   |           |
| <b>Chronic Disease (must take 3 credits from the following courses)</b>                      | <b>3</b>  |
| EPI 801 Introduction to Cancer Epidemiology 2 credits  |           |
| OR   |           |
| Epi 812 Chronic Disease Epidemiology 3 credits   |           |
| OR   |           |
| EPI 846 Mental Health Epidemiology 3 credits   |           |
| AND  |           |
| EPI 802 Cancer Epidemiology in Special Populations 1 credit                                  |           |
| <b>Infectious Disease Selectives (Must take 3 credits from the following courses)</b>        | <b>3</b>  |
| EPI 825 Infectious Disease Epidemiology 3 credits  |           |
| OR   |           |
| <b>EPI 936 Infectious Diseases and Cancer 3 credits</b>                                      |           |
| <b>Biostatistics Selectives (Must take 3 credits from the following courses)</b>             | <b>3</b>  |
| BIOS 808 Biostatistics II 3 credits  |           |
| OR   |           |
| BIOS 818 Biostatistical Methods II 3 credits   |           |
| <b>Electives<sup>2</sup> (Must take at least 3 credit hours from the following courses)</b>  | <b>3</b>  |
| EPI 803 Topics in Cancer Prevention I 1 credit   |           |
| EPI 804 Topics in Cancer Prevention II 1 credit  |           |
| EPI 840 Epidemiological Measurements and Research in Maternal and Child Health 2 credits     |           |
| <b>EPI 910 Research Grant Proposal Development 2 credits</b>                                 |           |
| <b>EPI 935 Health Information and Surveillance 3 credits</b>                                 |           |
| <b>EPI 941 Epidemiologic Methods in Applied Clinical Genetics I 1 credit</b>                 |           |
| <b>EPI 942 Epidemiologic Methods in Applied Clinical Genetics II 1 credit</b>                |           |
| <b>EPI 999 Doctoral Dissertation</b>   | <b>12</b> |
| <b>Total Program Hours</b>   | <b>48</b> |

<sup>1</sup>Students admitted to the PhD in Epidemiology must have a previously earned Masters degree in epidemiology or a related field.

<sup>2</sup>All approved elective courses are graduate-level 800/900 courses. Academic advisors approve student's choice of electives.<sup>21</sup>

# DOCTOR OF PHILOSOPHY HEALTH PROMOTION AND DISEASE PREVENTION RESEARCH

## **Program Purpose**

- The Ph.D. in Health Promotion and Disease Prevention Research is offered through the Department of Health Promotion, Social & Behavioral Health (HPSBH) in the College of Public Health. The mission of the Ph.D. program is to provide students with the training necessary to become skilled research scientists who will have a significant impact on the health of the population by thinking critically and integratively about complex public health problems and applying scientific rigor to the design and evaluation of health promotion and disease prevention research and programs. Our faculty offer research expertise in obesity, nutrition, physical activity, tobacco control, sexual health, substance abuse, health care ethics, health law, professionalism, nursing ethics, ethical issues in organ transplantation, medical organization, environmental aspects of health care, genetics, advanced medical technology, public health ethics, history of medicine and public health, and the aesthetic and humanistic aspects of health care facilities. Graduates of the program will be prepared for careers as scientists in government and private research agencies, as faculty in colleges and universities, and as leaders in public health agencies in Nebraska, the nation, and the world.

## **Program Competencies**

Upon graduation, a student with a PhD in Health Promotion and Disease Prevention Research will be able to:

1. Conceptualize quantitative and qualitative research that is ethical, rigorous, and innovative and is based on an advanced knowledge of health promotion theories and disease prevention.
2. Conduct rigorous quantitative and qualitative research based on methodologically sound principles and analytical techniques.
3. Conduct needs assessment related to quality of life, health outcomes, and health behaviors in communities or priority population groups.
4. Develop measureable objectives and evidence-based interventions in response to needs assessment to promote health and prevent disease among targeted populations.
5. Implement evidence-based and high-impact health promotion and disease prevention interventions that effectively target policy, environmental, community, or individual health behavior change.
6. Evaluate the reach, effectiveness, cost, and impact of evidence-based health promotion and disease prevention interventions and programs using scientifically sound study design, indicators, and analytical techniques.
7. Disseminate and communicate results of research to a broad audience through such avenues as scientific conferences, community forums, and peer-reviewed journals.

## **Admission Requirements for the Ph.D. in Health Promotion and Disease Prevention Research**

Any applicant desiring admission into the Ph.D. program must submit a fully completed application. Below is a complete list of all documents required for application. It is the applicant's responsibility to request an official copy of the academic record be sent to the graduate office from each college or university that the applicant has attended. A minimum cumulative grade-point average of 3.00/4.00 on all graduate course work attempted at an accredited institution of higher education is required for admission. Masters or other advanced degrees are required for admission, although exceptional students with Bachelor's degree will be considered. The official results from the GRE must be submitted to the graduate office. The GRE must have been taken no more than five years prior to the application date. Most successful applicants will have verbal and quantitative GRE scores at or above the 60th percentile. All international applicants whose native language is not English and who do not have a MS from an accredited institution are required to submit a TOEFL of 550 (paper), 213 (Computer), or 80 (Internet). The TOEFL must have been taken no more than two years prior to the application date. Each applicant must submit a written statement of career goals. This writing sample of 750-1000 words will be used to assess writing competence as well as career objectives. Three letters of recommendation are required for admission. At least one of these letters must be from a faculty member in the applicant's previous program who can attest to the applicant's ability to pursue successfully a PhD program. The remaining two letters may be academic or professional references.

Complete list of documents and scores required of applicants:

- Fully completed application form.
- Official copy of academic record- sent to the graduate office- minimum of 3.00 on a 4.00 scale GPA for all graduate course work.
  - FOREIGN TRANSCRIPTS: Official transcripts or mark sheets of college level work not in English or in the standard U.S grading scale must be sent to a credential evaluation service for translation. The transcript evaluation must be a course by course evaluation that identifies and describes each diploma or certificate with periods of education and equivalency of each document. The preferred services are: World Education Services (WES) and Educational Credential Evaluators, Inc. (ECE). Other services approved by the National Association of Credential Evaluation Services (NACES) will also be accepted. Transcripts must carry the signature of a responsible official in which the work was done and the seal of that institution, or must be certified true copies of the original records. If photo static copies are provided, the copies must be certified after duplication as true copies of the original document. Transcripts should clearly indicate the grades received or the standing attained on required examinations. If transcripts do not show the degree earned and the date on which it was conferred official degree statements must also be provided.



- Masters or other advanced degrees, although exceptional students with Bachelor's degree will be considered.
- GRE results from test taken no more than five years prior to the application date. Most successful applicants will have verbal and quantitative GRE scores at or above the 60th percentile.
- International students: TOEFL of 550 (paper), 213 (computer), or 80 (internet.)
- Written statement of career goals, 750-1000 words.
- Three letters of recommendation; at least one from a faculty member in the applicant's previous program. Remaining two letters- academic and/or professional.

## Degree Requirements

Program of Study for PhD in **Health Promotion and Disease Prevention Research<sup>1</sup>**

| Courses   |                  | Credits |
|---|------------------|---------|
| Health Promotion Courses                                      |                  | 18      |
| HPRO 830 Foundations of Public Health                         | 3 credits        |         |
| HPRO 827 Interventions in Health Promotion                    | 3 credits        |         |
| HPRO 840 Health Promotion Program Planning                    | 3 credits        |         |
| HPRO 860 Health Behavior                                      | 3 credits        |         |
| <b>HPRO 901 Advanced Theories in Public Health</b>            | <b>3 credits</b> |         |
| <b>HPRO 902 Complex Systems Thinking</b>                      | <b>3 credits</b> |         |
| Research  |                  | 24      |
| BIOS 806 Biostatistics I                                      | 3 credits        |         |
| BIOS 808 Biostatistics II                                     | 3 credits        |         |
| BIOS 810 Introduction to SAS Programming                      | 3 credits        |         |
| EPI 820 Epidemiology in Public Health                         | 3 credits        |         |
| EPI 821 Applied Epidemiology                                  | 3 credits        |         |
| HPRO 805 Applied Research in Public Health                    | 3 credits        |         |
| HPRO 875 Public Health Program Evaluation                     | 3 credits        |         |
| <b>HPRO 910 Humanistic Traditions in Qualitative Research</b> | <b>3 credits</b> |         |
| Directed Research Courses                                     |                  | 6       |
| <b>HPRO 996 Directed Readings and Research</b>                |                  |         |
| Writing   |                  | 4       |
| <b>EPI 910 Research Grant Proposal Development</b>            | <b>2 credits</b> |         |
| <b>HPRO 925 Scientific Writing for Public Health</b>          | <b>2 credits</b> |         |
| Ethics  |                  | 3       |
| HPRO 825 Ethics in Public Health                              | 3 credits        |         |
| Elective Courses <sup>2</sup>                                 |                  | 23      |
| BIOS 835 Design of Medical Studies                            | 3 credits        |         |
| ENV 810 Principles of Occupational and Environmental Health   | 3 credits        |         |
| EPI 812 Chronic Disease Epidemiology                          | 3 credits        |         |

|   |           |           |
|---|-----------|-----------|
| EPI 825 Infectious Disease Epidemiology                         | 3 credits |           |
| HPRO 807 Introduction to Community-Based Participatory Research | 3 credits |           |
| HSRA 820 Global Applications in Public Health                   | 3 credits |           |
| <b>HPRO 999 Doctoral Dissertation</b>                           |           | <b>12</b> |
| Total Program Hours   |           | <b>90</b> |

<sup>1</sup>The 90 credit hours required are based on accepted students with a Bachelor's degree. Students with a Master's degree can transfer up to 45 credit hours. The required courses are transferred based on evaluation by the instructors teaching similar courses, while the elective courses are transferred with approval from the student's Supervisory Committee

<sup>2</sup>Elective courses are graduate-level 800/900 courses. Academic advisors approve appropriate elective courses.

# DOCTOR OF PHILOSOPHY HEALTH SERVICES RESEARCH, ADMINISTRATION, AND POLICY

## **Program Purpose**

The PhD in Health Services Research, Administration and Policy is offered through the Department of Health Services Research and Administration, UNMC College of Public Health.

The PhD program in Health Services Research, Administration, and Policy educates students to be scholars and health services researchers for careers in academia and also in large corporations, insurance companies, government agencies, health care organizations, and consulting firms. Incorporating the core competencies of health services research, the program focuses on methods and application of health services research, health administration, and health policy. Program graduates will be equipped to serve the public and private sectors in Nebraska, the Midwest region, the nation, and the world. Students will gain valuable experience by working closely with faculty whose research interests include health economics, health care finance, organizational behavior, medical geography, policy analysis, program & policy evaluation, health outcomes research, public health informatics, workforce, public health services research, and underserved populations. Program faculty conduct research and service activities through the Nebraska Center for Rural Health Research and the UNMC Center for Health Policy.

## **Program Competencies**

1. Apply alternative theoretical and conceptual models from a range of relevant disciplines to health services research.
2. Apply in-depth multidisciplinary knowledge and skills relevant to health services research.
3. Utilize the knowledge of the structures, performance, quality, policy, and environmental context of health and health care to formulate solutions for health policy problems.
4. Critically evaluate evidence, synthesize findings, and draw inferences from literature relevant to health services research.
5. Pose innovative and important research questions, informed by systematic reviews of the literature, stakeholder needs, and relevant theoretical and conceptual models.
6. Use a conceptual model to specify study constructs for a health services research question and develop variables that reliably and validly measure these constructs.
7. Select appropriate interventional (experimental and quasi-experimental) or observational (qualitative, quantitative, and mixed methods) study designs to address specific health services research questions.
8. Know how to collect primary health and health care data obtained by survey, qualitative, or mixed methods.
9. Use appropriate analytical methods to clarify associations between variables and to delineate causal inferences.
10. Appropriately interpret the results of data analysis and discuss the implications for policy and practice, to support public health decision making.
11. Effectively communicate the findings and implications of health services research through multiple modalities to technical and lay audiences.
12. Implement research protocols with standardized procedures that ensure reproducibility of the science and ensure the ethical and responsible conduct of research in the design, implementation, and dissemination of health services research.

13. Articulate the importance of collaborating with policymakers, organizations, and communities to plan, conduct, and translate health services research into policy and practice.

## Admission Requirements

Program of Study for PhD in [Health Services Research, Administration, and Policy](#)<sup>1</sup>

| Courses  | Credits          |
|--|------------------|
| <b>Required</b>  | <b>39</b>        |
| EPI 820 Epidemiology in Public Health  | 3 credits        |
| HPRO 830 Foundations of Public Health  | 3 credits        |
| BIOS 806 Biostatistics I   | 3 credits        |
| BIOS 808 Biostatistics II  | 3 credits        |
| <b>HPRO 910 Qualitative Research Methods</b>                                 | <b>3 credits</b> |
| HSRA 810 U.S. Healthcare Systems   | 3 credits        |
| HSRA 830 Health Care Organizational Theory and Behavior                      | 3 credits        |
| HSRA 860 Health Economics  | 3 credits        |
| HSRA 872 Health Care Finance   | 3 credits        |
| HSRA 873 Health Services Administration                                      | 3 credits        |
| HSRA 874 Health Policy   | 3 credits        |
| <b>HSRA 920 Quantitative Methods in Health Services Research</b>             | <b>3 credits</b> |
| <b>HSRA 930 Design of Health Services Research</b>                           | <b>3 credits</b> |
| Area of Emphasis (Selected—see advisor for more options)                     | 15               |
| <b>HSRA 940 Integrated Seminar in Economics and Health Services Research</b> | <b>3 credits</b> |
| <b>HSRA 950 Application of Medical Geography to Health Services Research</b> | <b>3 credits</b> |
| <b>HSRA 960 Seminar in Health Care Administration</b>                        | <b>3 credits</b> |
| <b>HSRA 980 Seminar in Health Policy</b>                                     | <b>3 credits</b> |
| <b>HSRA 996 Directed Readings and Research</b>                               | <b>3 credits</b> |
| Elective Courses <sup>2</sup>  | 12-18            |
| <b>HSRA 999 Doctoral Dissertation</b>  | <b>18-24</b>     |
| Total Program Hours  | 90               |

<sup>1</sup>The 90 credit hours required are based on accepted students with a Bachelor's degree. Students with a Master's degree can transfer up to 45 credit hours. The required courses are transferred based on evaluation by the HSRAP Graduate Committee and instructors teaching similar courses, while the elective courses are transferred with approval from the student's Supervisory Committee

<sup>2</sup>Elective courses are graduate-level 800/900 courses. Academic advisors approve appropriate elective courses.

Program of Study for Academic Family Medicine Track in the PhD in [Health Services Research, Administration, and Policy Program](#)<sup>1</sup>

| Courses  | Credits          |
|--|------------------|
| Required courses   | 39               |
| EPI 820 Epidemiology in Public Health  | 3 credits        |
| BIOS 806 Biostatistics I   | 3 credits        |
| BIOS 808 Biostatistics II  | 3 credits        |
| HPRO 830 Foundations of Public Health  | 3 credits        |
| <b>HPRO 910 Qualitative Research Methods</b>                                 | <b>3 credits</b> |
| HSRA 810 U.S. Healthcare Systems   | 3 credits        |
| HSRA 830 Health Care Organizational Theory and Behavior                      | 3 credits        |
| HSRA 860 Health Economics  | 3 credits        |
| HSRA 872 Health Care Finance   | 3 credits        |
| HSRA 873 Health Services Administration                                      | 3 credits        |
| HSRA 874 Health Policy   | 3 credits        |
| <b>HSRA 920 Quantitative Methods in Health Services Research</b>             | <b>3 credits</b> |
| <b>HSRA 930 Design of Health Services Research</b>                           | <b>3 credits</b> |
| Area of Emphasis Courses   | 15               |
| FMED 850 Academic Medicine Theory and Practice                               | 2 credits        |
| <b>FMED 970 Academic Medicine Seminar</b>                                    | <b>2 credits</b> |
| <b>FMED 990 Family Medicine Academic Practicum</b>                           | <b>3 credits</b> |
| <b>GCBA 907 Teaching and Research Presentation Skills</b>                    | <b>2 credits</b> |
| <b>HSRA 940 Integrated Seminar in Economics and Health Services Research</b> | <b>3 credits</b> |
| Selectives (3 hours)   | 3                |
| <b>HSRA 960 Seminar in Health Care Administration</b>                        | <b>3 credits</b> |
| <b>HSRA 980 Seminar in Health Policy</b>                                     | <b>3 credits</b> |
| Elective Courses   | 12-18            |
| <b>HSRA 999 Doctoral Dissertation</b>  | <b>18-24</b>     |
| Total Program Hours  | 90               |

<sup>1</sup>The 90 credit hours required are based on accepted students with a Bachelor's degree. Students with a Master's degree can transfer up to 45 credit hours. The required courses are transferred based on evaluation by the HSRAP Graduate Committee and instructors teaching similar courses, while the elective courses are transferred with approval from the student Supervisory Committee

<sup>2</sup>Elective courses are graduate-level 800/900 courses. Academic advisors approve appropriate elective courses.

# MPH CORE COMPETENCIES

*Upon graduation, a student with a Master of Public Health should be able to...*

| <b>Core Domains</b>   |
|---|
| <b>1. Biostatistics</b>   |
| A. Describe the roles biostatistics serves in public health.  |
| B. Apply descriptive and inferential methodologies according to the type of study design.   |
| C. Interpret results of statistical analyses in public health studies.  |
| <b>2. Environmental Health Sciences</b>   |
| A. Describe how biological, chemical, and physical agents affect human health.  |
| B. Describe federal and state regulatory programs, guidelines, and authorities that control environmental health issues.                  |
| C. Specify approaches for assessing, preventing, and controlling environmental hazards that pose risks to human health and safety.        |
| D. Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.                           |
| <b>3. Epidemiology</b>  |
| A. Explain the importance of epidemiology for informing public health issues.   |
| B. Identify key sources of data for epidemiological purposes.   |
| C. Calculate basic epidemiology measures and draw appropriate inferences from epidemiological data.                                       |
| D. Use epidemiological measures to describe a public health problem in terms of magnitude, person, time, and place.                       |
| <b>4. Health Policy and Management</b>  |
| A. Identify the main components and issues of the structure, financing, and delivery of health services within health systems in the U.S. |
| B. Discuss the policy process for improving the health status of populations.   |
| C. Identify the fundamentals of organizational management.  |
| D. Discuss the theory of organizational structures and behaviors.   |
| <b>5. Social and Behavioral Sciences</b>  |
| A. Identify social and behavioral theories, concepts, and models used in public health research and practice.                             |
| B. Identify social and behavioral factors that affect the health of individuals and populations.  |
| C. Describe the planning, implementation, and evaluation of public health programs, policies, and interventions.                          |

- |  |
|--|
| D. Specify targets and levels of intervention for social and behavioral science programs and policies. |
|--|

|                              |
|------------------------------|
| <b>Cross-Cutting Domains</b> |
|------------------------------|

|  |
|--|
| <b>6. Foundations of Public Health</b> |
|--|

- |  |
|--|
| A. Describe the ecological model of public health.                                     |
| B. Describe basic biological principles that apply to public health.                   |
| C. Communicate accurate public health information with professional and lay audiences. |

|                                   |
|-----------------------------------|
| <b>7. Applied Research Skills</b> |
|-----------------------------------|

- |   |
|---|
| A. Identify and apply fundamental research skills in public health. |
| B. Identify and critically appraise public health research.         |
| C. Prepare grant proposals.   |

|  |
|--|
| <b>8. Leadership, Advocacy, and Community-Building</b> |
|--|

- |   |
|---|
| A. Identify linkages with key stakeholders.                             |
| B. Identify different levels of community engagement and participation. |
| C. Engage in collaborative problem-solving and decision-making.         |

|                                 |
|---------------------------------|
| <b>9. Culture and Diversity</b> |
|---------------------------------|

- |  |
|--|
| A. Discuss determinants of health disparities.   |
| B. Describe methods and regulations associated with public health practice in relation to diverse populations. |

|                          |
|--------------------------|
| <b>10. Ethics Skills</b> |
|--------------------------|

- |  |
|--|
| A. Apply ethical principles to the collection, maintenance, use, and dissemination of public health information. |
| B. Articulate how ethical principles apply to public health practice.  |



# BIOSTATISTICS COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Biostatistics should be able to...*

| <b>Concentration Domains</b>  |
|---|
| <b>1. Statistical Considerations in Study Design</b>  |
| A. Formulate pertinent research questions and hypotheses in statistical terms.  |
| B. Identify strengths and weaknesses of study designs and implement scientifically and statistically sound design strategies.   |
| C. Select variables relevant to a specific public health or biomedical problem for utilization in statistical design and analysis.  |
| D. Recognize sources of bias and confounding in study design.   |
| E. Determine statistical power and sample size needed for future public health and biomedical studies.  |
| <b>2. Perform Statistical Analysis of Data</b>  |
| A. Apply appropriate statistical methods for estimation and inference, including univariate and multivariate methods appropriate for continuous, categorical, and time-to-event data. |
| B. Utilize a software package for data management, statistical analyses, and data presentation.   |
| C. Apply statistical methods for quality control and data cleaning to already collected data, before the actual statistical analysis.   |
| D. Verify assumptions of statistical tests and models and implement appropriate methods to address observed violations of the assumptions.  |
| E. Apply basic measures to account for confounding factors in the analysis of public health and biomedical studies, including matching, and multivariable analysis.                   |
| F. Evaluate the strengths and limitations of statistical analyses of public health and biomedical studies.  |
| <b>3. Interpretation and Dissemination of Statistical Analysis</b>  |
| A. Develop written and oral presentations based on statistical findings for both public health professionals and lay audiences.   |
| <b>4. Ethical/Legal Treatment of Human Subjects</b>   |
| A. Be familiar with the Institutional Review Board (IRB) research requirements and process.   |

# COMMUNITY ORIENTED PRIMARY CARE COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Community Oriented Primary Care should be able to...*

| <b>Concentration Domains</b>   |
|--|
| <b>1. The Community Dimension in Health Care</b>   |
| A. Explain the ecological model of Community Health.   |
| B. Identify the role of the community in the promotion and improvement of its own health and on health care services.  |
| C. Demonstrate understanding of the role and value of primary health care in promotion of community health as an integral component of the health care system.   |
| D. Formulate different definitions of community.   |
| E. Identify the purpose, content, and methods in the characterization of a community.  |
| <b>2. Community Oriented Primary Care (COPC)</b>   |
| A. Describe, analyze, and integrate the conceptual framework and principles of COPC.   |
| B. Define a community for the purpose of clinical care at the community level; and plan an assessment of health needs using available data for the collection and analysis of health information.  |
| C. Justify the need for the prioritization process in COPC, and define objective criteria to be used for the selection and determination of methods to discuss process and decision.   |
| D. Demonstrate the ability to plan an in-depth selective detailed assessment of a health or set of health conditions in the community, using quantitative and qualitative methods.   |
| E. Demonstrate the ability to plan and develop all the stages of a systematic COPC intervention considering evidence based interventions and apply appropriate methods to promote community participation in the development of COPC.  |
| F. Analyze the differential features and factors involved in the application of COPC worldwide, and identify the opportunities and challenges in the current application of COPC to different healthcare systems.  |
| G. Assess the conceptual and practical factors to take into account the applicability of COPC, recognize the socio-economic, cultural, environment, political and health policy elements that could challenge the application of COPC and develop alternative application solutions. |
| H. Communicate the principles and features of the practice of COPC to lay populations, to health professionals, and to other related audiences.  |

# ENVIRONMENTAL AND OCCUPATIONAL HEALTH COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Environmental and Occupational Health should be able to...*

| <b>Concentration Domains</b>  |
|---|
| <b>1. Industrial Safety for Health Sciences</b>   |
| A. Apply evidenced-based safety engineering and occupational health concepts and methods to the identification, evaluation, prevention, and control of important injury and illness hazards in general industry work environments.                |
| B. Synthesize and apply specific occupational health and safety regulations and best practices to common workplace environments and situations in accordance with OSHA 29 CFR 1910 Occupational Health and Safety Standards for General Industry. |
| C. Identify and describe the human and organizational direct and indirect costs of accidents and injuries in the workplace and to the community at large.   |
| D. Discuss and apply common accident causation models to case study scenarios to develop effective corrective action to prevent future occurrence.  |
| E. Discuss the major components of an effective and efficient general industry safety program.  |
| F. Discuss and apply basic risk management and risk communication approaches to common industrial safety and health problems.   |
| <b>2. Occupational and Environmental Health</b>   |
| A. Explain the role of biology and the environment in the ecological model of population-based health.  |
| B. Specify pathways of exposure including routes of transfer from the source, through all environmental media, to humans.   |
| C. Identify major causes of workplace related illnesses and approaches to reducing occupational health risks.   |
| D. Describe seminal historical cases that have shaped understanding of environmental and occupational health and have helped to avoid repeating past mistakes.  |
| E. Identify ethical, social, and legal issues central to occupational health.   |
| F. Describe how human behavior impacts environmental and occupational exposures and outcomes.   |
| G. Develop interventions to reduce environmental and occupational exposures.  |

# EPIDEMIOLOGY COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Epidemiology should be able to...*

| <b>Concentration Domains</b>  |
|---|
| <b>1. Problem Conceptualization</b>   |
| A. Conceptualize epidemiologic research questions and hypotheses.             |
| B. Apply principles of causal inference to epidemiologic data.                |
| C. Review and critique published epidemiologic studies.                       |
| <b>2. Surveillance</b>  |
| A. Identify key sources of surveillance data.                                 |
| B. Compute epidemiologic measures using surveillance data.                    |
| C. Use surveillance data to answer an epidemiologic question.                 |
| <b>3. Study Design</b>  |
| A. Choose a study design appropriate for a particular epidemiologic question. |
| B. Design an appropriate, scientifically sound study.                         |
| <b>4. Data Analysis and Interpretation</b>                                    |
| A. Identify and interpret key study results.                                  |
| B. Select appropriate statistical methods for analysis of epidemiologic data. |
| C. Identify potential sources and effects of bias in epidemiologic studies.   |
| D. Apply methods to minimize sources of bias in epidemiologic study results.  |
| <b>5. Dissemination of Study Findings</b>                                     |
| A. Communicate epidemiologic information to lay and professional audiences.   |

# HEALTH POLICY COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Health Policy should be able to...*

| Concentration Domains   |
|---|
| <b>1. Formulation and Implementation</b>  |
| A. Demonstrate knowledge of public health policy formulation and implementation strategies.   |
| B. Collect, analyze, and synthesize information about health policy problems and issues.  |
| C. Develop alternative policy options for specific public health issues and assess their economic, political, legal, and social implications. |
| <b>2. Analysis and Evaluation</b>   |
| A. Evaluate the effectiveness of public health policy using formal methods of policy analysis and program evaluation.                         |
| B. Comparatively analyze and interpret legislation, administrative regulations, judicial opinions, and agency rulings.                        |
| C. Apply economic principles and theories to analyze the delivery of health care services, public health, and health policy issues.           |

# HEALTH PROMOTION COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Health Promotion should be able to...*

| Concentration Domains   |
|---|
| <b>1. Program and Intervention Planning</b>   |
| A. Demonstrate skills needed to conduct health-related needs assessments in a variety of communities.   |
| B. Apply community health and organizational theories, models, principles, and best practices in planning health promotion programs or interventions. |
| C. Identify, incorporate, and analyze contexts and key factors relevant to the implementation of health promotion programs or interventions.          |
| <b>2. Evaluation of Programs and Interventions</b>  |
| A. Identify and evaluate health-related data and instruments.   |
| B. Utilize appropriate qualitative and quantitative evaluation methods.   |
| C. Apply evaluation findings to programs and policies.  |
| <b>3. Community Engagement</b>  |
| A. Demonstrate skills needed to coordinate and facilitate community groups, coalitions, and partnerships.   |
| <b>4. Management and Leadership</b>   |
| A. Demonstrate abilities in the administration and management of community health programs.   |
| B. Demonstrate the skills to advance a systems approach to community health through professional leadership and practice.                             |

# MATERNAL AND CHILD HEALTH COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Maternal and Child Health should be able to...*

| <b>Concentration Domains</b>  |
|---|
| <b>1. Scientific Basis</b>  |
| A. Identify the major behavioral, morbidity, and mortality issues within the maternal and child populations at the local, state, national, and global levels.                       |
| B. Assess the socio-economic, cultural, biological, environmental, and societal determinants of health and disease in maternal and child populations.                               |
| C. Identify appropriate methods to study health status and its determinants, and design interventions.  |
| D. Identify the key elements in the life course perspective and how they are applied.   |
| <b>2. Methodological and Analytical Skills</b>  |
| A. Use data to analyze health status and its determinants through the life span, and to identify effective interventions.   |
| B. Critically analyze the qualitative and quantitative methods applied in MCH research.   |
| C. Identify existing gaps in knowledge in MCH assessments and interventions, and propose alternatives to close the gaps.  |
| <b>3. Management and Communication Skills</b>   |
| A. Apply knowledge of management and organizational theories in the development of proposals for program interventions and research.  |
| B. Present an effective oral and written presentation to diverse audiences.   |
| <b>4. Policy and Advocacy Skills</b>  |
| A. Describe the historical development of MCH public policies and practices in the U.S. for federal, state, and local agencies and programs serving maternal and child populations. |
| B. Analyze the current organizations and their gaps in MCH services and programs.   |
| <b>5. Values and Ethics in MCH Public Health Practice</b>   |
| A. Analyze the principles of equity, social justice, and human rights in the assessment of the health of maternal and child populations and programs for those populations.         |
| B. Identify the ethical principles in MCH practice and research.  |

# PUBLIC HEALTH ADMINISTRATION COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Public Health Administration should be able to...*

| <b>Concentration Domains</b>   |
|--|
| <b>1. Organizational Theory and Behavior</b>   |
| A. Describe fundamental concepts and information about organizational and behavioral theories in health care.  |
| B. Demonstrate the skills to resolve organizational problems through a systems approach.   |
| C. Demonstrate the skills to analyze organizational issues from a multidisciplinary perspective.   |
| <b>2. Health Care Finance</b>  |
| A. Prepare operating and capital budgets, considering political, economic, and social contexts; using appropriate financial and statistical tools; and stating assumptions and justifications. |
| B. Demonstrate the skills to implement budgets, evaluating actual performance and taking appropriate actions to enhance performance and/or revise budgets.                                     |
| C. Analyze risk as a basis for financial decision-making and implement appropriate risk mitigation strategies.   |
| D. Demonstrate the application of financial management techniques to enhance performance of public health and health services organizations.   |
| <b>3. Strategic Planning</b>   |
| A. Evaluate and document internal and external strengths, weakness, opportunities, and threats to identify strategic issues.   |
| B. Prepare strategic and operational plans that consider current and potential internal and external issues.   |
| C. Demonstrate the skills to lead and facilitate planning activities.  |
| D. Demonstrate the skills to implement operational and strategic plans, evaluating performance and adjusting implementation activities and/or plans.   |
| <b>4. Human Resources Management</b>   |
| A. Describe various theories, principles, best practices, and challenges of human resources management in health care organizations.   |
| B. Explain the effects of human factors and demographics in managing others.   |
| C. Identify the legal, political, social, and economic issues that impact human resources management.  |



# SOCIAL MARKETING AND HEALTH COMMUNICATION COMPETENCIES

*Upon graduation, a student with a MPH with a concentration in Social Marketing and Health Communication should be able to...*

| <b>Concentration Domains</b>  |
|---|
| <b>1. Macro-level Assessment</b>  |
| A. Identify social determinants of health for the purpose of tailoring social marketing and health communication programs to diverse populations.                             |
| B. Articulate principles of Community Based Participatory Research (CBPR).  |
| C. Identify and apply various modes of learning such as written, audio, visual, and kinesthetic in health communication.  |
| D. Identify the levels of health literacy and the instruments used to measure functional health literacy levels.  |
| <b>2. Program Planning</b>  |
| A. Articulate the ethical principles of social marketing, health communication, and CBPR as they apply to public health practice.   |
| B. Explain the process to foster collaboration by establishing partnerships with communities, stakeholders, gatekeepers, and members of the identified priority population.   |
| C. Demonstrate leadership, advocacy, and community building in the field of social marketing and health communication by utilizing effective health communication strategies. |
| D. Describe how the ecological model influences social marketing and health communication.  |
| E. Analyze marketing strategies and identify the best possible option given the resources available.  |
| <b>3. Plan Implementation</b>   |
| A. Demonstrate awareness of the need for cultural humility in communication methodology.  |
| B. Apply appropriate research methodologies to compile evidence that informs decision-making in social marketing and health communication.                                    |
| C. Assess and apply communication delivery channels, such as mass media, social media, and print materials.   |
| <b>4. Plan Evaluation</b>   |
| A. Evaluate existing social marketing campaigns through examination of process and performance outcomes.  |
| B. Create and evaluate a new social marketing campaign.   |

# PhD CORE COMPETENCIES

The COPH PhD degrees are terminal degrees that prepare future public health researchers and educators to address public health issues through innovative research and education. Core competencies for all PhD programs are:

*Upon graduation, a student with a PhD should be able to...*

| Concentration Domains   |
|---|
| 1. Demonstrate an in-depth knowledge and understanding of public health and related issues.   |
| 2. Critically evaluate research, reports, and data using theories and frameworks relevant to public health.   |
| 3. Demonstrate an in-depth understanding of theoretical, multidisciplinary concepts relevant to public health issues.   |
| 4. Design and conduct original research in public health.   |
| 5. Incorporate knowledge of cultural, social, behavioral, and biological factors in formulating and implementing public health research, teaching, and service. |
| 6. Demonstrate teaching and presentation skills in academic, research, and practice settings.   |
| 7. Demonstrate cultural sensitivity in research, teaching, and service.   |
| 8. Demonstrate grant- and manuscript-writing skills.  |
| 9. Articulate the process for developing and/or sustaining collaborations with communities, policy makers, and other relevant groups.                           |
| 10. Demonstrate knowledge of potential conflicts of interest encountered by practitioners, researchers, and organizations.                                      |

# COPH COURSE OFFERINGS

Courses offered by College of Public Health departments are listed as both CPH and Graduate (BIOS, EPI, ENV, HPRO, HSRA) offerings. MPH and Cert.PH students should register for the CPH listing. M.S. and PhD students should register for the graduate listing.

| Grad.<br>Course # | CPH<br>Course # | COPH COURSE OFFERINGS BY DEPARTMENT                                   |                  |
|-------------------|-----------------|---|------------------|
|                   |                 | Course Title  | Credit Hr        |
| <b>BIOS</b>       | <b>CPH</b>      | <b>Biostatistics Department</b>                                       |                  |
| BIOS 806          | CPH 506         | Biostatistics I   | 3                |
| BIOS 808          | CPH 650         | Biostatistics II  | 3                |
| BIOS 810          | CPH 651         | Introduction to SAS Programming                                       | 3                |
| BIOS 818          | CPH 652         | Biostatistical Methods II   | 3                |
| BIOS 823          | CPH 653         | Categorical Data Analysis   | 3                |
| BIOS 824          | CPH 654         | Survival Data Analysis  | 3                |
| BIOS 825          | CPH 655         | Correlated Data Analysis  | 3                |
| BIOS 835          | CPH 517         | Design of Medical Health Studies                                      | 3                |
| BIOS 896          | CPH 677         | Research Other Than Thesis  | Variable         |
| BIOS 898          | CPH 679         | Special Topics for Masters Students                                   | Variable         |
| BIOS918           |                 | Biostatistical Linear Models: Theory and Applications                 | 3                |
| BIOS 921          |                 | Advanced Programming for SAS  | 3                |
| BIOS 924          |                 | Biostatistical Theory and Models for Survival Data                    | 3                |
| BIOS 925          |                 | Theory of Generalized Linear and Mixed Models in Biostatistics        | 3                |
| BIOS 935          |                 | Semiparametric Methods for Biostatistics                              | 3                |
| BIOS 970          |                 | Seminar   | 1                |
| BIOS 996          |                 | Directed Readings and Research  | Variable         |
| BIOS 998          |                 | Special Topics for Doctoral Students                                  | Variable         |
| BIOS 999          |                 | Biostatistics PhD Dissertation Research                               | Variable         |
|                   | CPH 528         | Service Learning for MPH Students                                     | 3                |
|                   | CPH 529         | MPH Capstone Experience   | 3                |
| <b>ENV</b>        | <b>CPH</b>      | <b>Environmental, Agricultural and Occupational Health Department</b> | <b>Credit Hr</b> |
| ENV 800           | CPH 590         | Elements of Industrial Safety for Health Sciences                     | 3                |
| ENV 802           | CPH 591         | Occupational Health and Safety for Health Sciences                    | 3                |
| ENV 804           | CPH 592         | Human Factors and Ergonomics for Work Environments                    | 3                |
| ENV 810           | CPH 593         | Principles of Occupational and Environmental Health                   | 3                |
| ENV 816           | CPH 594         | Environmental Exposure Assessment                                     | 3                |
| ENV 840           | CPH 595         | Sustainability, Climate Change & Health                               | 3                |
| ENV 850           |                 | Occupational Biomechanics   | 3                |
| ENV 875           | CPH 596         | Chemical Carcinogenesis   | 2                |
| ENV 888           | CPH 597         | Principles of Toxicology  | 3                |

|            |            |  |               |
|------------|------------|--|---------------|
| ENV 892    | CPH 503    | Public Health Environment & Society                                  | 3             |
| ENV 896    | CPH 617    | Research other than Thesis   | Variable      |
| ENV 898    | CPH 619    | Special Topics for Masters Students                                  | Variable      |
| ENV 899    |            | Master's Thesis  | Variable      |
| ENV 902    |            | Special Topics for Doctoral Students                                 | Variable      |
| ENV 920    |            | Xenobiotics in the Environment (UNL Campus)                          | 3             |
| ENV 950    |            | Advanced Toxicology  | 3             |
| ENV 970    |            | Seminar  | 1             |
| ENV 996    |            | Directed Readings and Research                                       | Variable      |
| ENV 999    |            | Doctoral Dissertation  | Variable      |
|            | CPH 528    | Service Learning for MPH Students                                    | 3             |
|            | CPH 529    | MPH Capstone Experience  | 3             |
| <b>EPI</b> | <b>CPH</b> | <b>Epidemiology Department</b>                                       | <b>Crd Hr</b> |
| EPI 801    | CPH 641    | Introduction to Cancer Epidemiology                                  | 2             |
| EPI 802    | CPH 642    | Cancer Epidemiology in Special Populations                           | 1             |
| EPI 803    | CPH 643    | Cancer Prevention and Control I                                      | 1             |
| EPI 804    | CPH 644    | Cancer Prevention and Control II                                     | 1             |
| EPI 811    | CPH 631    | Emergency Preparedness: Protection                                   | 3             |
| EPI 812    | CPH 620    | Chronic Disease Epidemiology   | 3             |
| EPI 820    | CPH 504    | Epidemiology in Public Health  | 3             |
| EPI 821    | CPH 621    | Applied Epidemiology   | 3             |
| EPI 825    | CPH 623    | Infectious Disease Epidemiology                                      | 3             |
| EPI 830    | CPH 624    | Advanced Infectious Disease Epidemiology                             | 3             |
| EPI 831    | CPH 625    | Physical Activity Epidemiology                                       | 3             |
| EPI 835    | CPH 626    | Health Information and Surveillance for Public Health Practice       | 3             |
| EPI 840    | CPH 627    | Epidemiological Measurements and Research in Maternal & Child Health | 2             |
| EPI 845    | CPH 628    | Epidemiologic Research Methods                                       | 4             |
| EPI 846    | CPH 646    | Mental Health Epidemiology   | 3             |
| EPI 870    |            | Seminar  | 1             |
| EPI 896    | CPH 647    | Research Other Than Thesis   | Variable      |
| EPI 898    | CPH 649    | Special Topics for Masters Students                                  | Variable      |
| EPI 899    |            | Master Thesis  | Variable      |
| EPI 900    |            | Epidemiologic analysis of binary and time-to-event-data              | 3             |
| EPI 905    |            | Critical Evaluation of Epidemiologic Research                        | 3             |
| EPI 910    |            | Grant Research Proposal Development                                  | 2             |
| EPI 932    |            | Epidemiology and Pathophysiology of Disease                          | 3             |
| EPI 936    |            | Infectious Disease and Cancer  | 3             |
| EPI 941    |            | Epidemiologic Methods in Applied Clinical Genetics I                 | 1             |
| EPI 942    |            | Epidemiologic Methods in Applied Clinical Genetics II                | 1             |
| EPI 945    |            | Epidemiologic Research Methods                                       | 4             |
| EPI 970    |            | Epidemiology Doctoral/Departmental Seminar                           | 3             |

|             |            |   |                  |
|-------------|------------|---|------------------|
| EPI 996     |            | Directed Readings and Research  | Variable         |
| EPI 998     |            | Special Topics for Doctoral Students  | Variable         |
| EPI 999     |            | Epidemiology Dissertation Research  | Variable         |
|             | CPH 528    | Service Learning for MPH Students   | 3                |
|             | CPH 529    | MPH Capstone Experience   | 3                |
| <b>HPRO</b> | <b>CPH</b> | <b>Health Promotion, Social and Behavioral Health Sciences</b>                              | <b>Credit Hr</b> |
| HPRO 802    | CPH 530    | Cultural Competence and Professionalism   | 3                |
| HPRO 803    | CPH 531    | Research Methods in HPER  | 3                |
| HPRO 805    | CPH 505    | Applied Research in Public Health   | 3                |
| HPRO 807    | CPH 540    | Introduction to Community Based Participatory Research                                      | 3                |
| HPRO 808    | CPH 555    | Public Health Law   | 3                |
| HPRO 809    | CPH 545    | Introduction to Health Disparities and Health Equity  | 3                |
| HPRO 810    | CPH 550    | Emergency Preparedness: Prevention  | 3                |
| HPRO 812    | CPH 553    | Emergency Preparedness: Response  | 3                |
| HPRO 813    | CPH 554    | Emergency Preparedness: Respond and Recover   | 3                |
| HPRO 815    | CPH 532    | Issues in Public Health: Past & Present   | 3                |
| HPRO 817    | CPH 551    | Community Oriented Primary Care (COPC):Principles and Practice                              | 3                |
| HPRO 818    | CPH 552    | Opportunities and Challenges in the Applicability of Community Oriented Primary Care (COPC) | 3                |
| HPRO 825    | CPH 533    | Health Care Ethics  | 3                |
| HPRO 827    | CPH 534    | Interventions in Health Promotion   | 3                |
| HPRO 830    | CPH 500    | Foundations of Public Health  | 3                |
| HPRO 831    | CPH 535    | Physical Activity Epidemiology  | 3                |
| HPRO 840    | CPH 536    | Health Promotion Program Planning   | 3                |
| HPRO 841    | CPH 541    | Introduction to Social Marketing and Health Communication                                   | 3                |
| HPRO 842    | CPH 542    | Applied Social Marketing  | 3                |
| HPRO 843    | CPH 543    | Health Literacy and Communication for Health Professionals                                  | 3                |
| HPRO 844    | CPH 544    | Nutrition Across the Lifespan   | 3                |
| HPRO 860    | CPH 501    | Health Behavior   | 3                |
| HPRO 869    | CPH 537    | Sexual Health: Ontology, Research, and Education  | 3                |
| HPRO 875    | CPH 538    | Public Health Program Evaluation  | 3                |
| HPRO 880    | CPH 546    | Introduction to Maternal and Child Health   | 3                |
| HPRO 881    | CPH 547    | Advanced Maternal and Child Health (MCH)  | 3                |
| HPRO 882    | CPH 548    | Child and Adolescent Growth and Development   | 2                |
| HPRO 883    | CPH 549    | Women's Health  | 2                |
| HPRO 895    | CPH 539    | Public Health Leadership and Advocacy   | 3                |
| HPRO 896    | CPH 557    | Research Other Than Thesis  | Variable         |
| HPRO 902    |            | Complex Systems Thinking  | 3                |
| HPRO 898    | CPH 559    | Special Topics for Masters Students   | Variable         |
| HPRO 910    |            | Humanistic Traditions of Qualitative Research   | 3                |
| HPRO 911    |            | Strategic Systems Modeling and Dynamics   | 3                |
| HPRO 935    |            | Ethics of Human Subjects Research   | 3                |

|             |            |   |                  |
|-------------|------------|---|------------------|
| HPRO 970    |            | Seminar   | 1                |
| HPRO 996    |            | Directed Readings and Research                                | Variable         |
| HPRO 998    |            | Special Topics for Doctoral Students                          | Variable         |
| HPRO 999    |            | Doctoral Dissertation   | Variable         |
|             | CPH 528    | Service Learning for MPH Students                             | 3                |
|             | CPH 529    | MPH Capstone Experience                                       | 3                |
| <b>HSRA</b> | <b>CPH</b> | <b>Health Services Research and Administration Department</b> | <b>Credit Hr</b> |
| HSRA 810    | CPH 560    | U.S. Health Care Systems: An Overview                         | 3                |
| HSRA 820    | CPH 507    | Global Applications in Public Health                          | 3                |
| HSRA 830    | CPH 580    | Health Care Organizational Theory and Behavior                | 3                |
| HSRA 840    | CPH 561    | Public Budgeting  | 3                |
| HSRA 841    | CPH 562    | Human Resources Management in Health Organizations            | 3                |
| HSRA 853    | CPH 563    | Strategic Planning and Management in the Public Health        | 3                |
| HSRA 860    | CPH 564    | Health Economics  | 3                |
| HSRA 867    | CPH 567    | Health Policy Analysis and Evaluation                         | 3                |
| HSRA 870    | CPH 575    | Principles of Public Health Informatics                       | 3                |
| HSRA 872    | CPH 565    | Health Care Finance   | 3                |
| HSRA 873    | CPH 502    | Health Services Administration                                | 3                |
| HSRA 874    | CPH 566    | Health Policy   | 3                |
| HSRA 896    | CPH 587    | Research Other Than Thesis                                    | Variable         |
| HSRA 898    | CPH 589    | Special Topics for Masters Students                           | Variable         |
| HSRA 920    |            | Quantitative Methods in Health Services Research              | 3                |
| HSRA 930    |            | Design of Health Services Research                            | 3                |
| HSRA 940    |            | Integrated Seminar in Economics & Health Services Research    | 3                |
| HSRA 950    |            | Medical Geography and Spatial Methods in Health Services      | 3                |
| HSRA 960    |            | Seminar in Health Care Administration                         | 3                |
| HSRA 970    |            | Seminar   | 1                |
| HSRA 980    |            | Seminar in Health Policy                                      | 3                |
| HSRA 998    |            | Special Topics for Doctoral Students                          | Variable         |
| HSRA 999    |            | Doctoral Dissertation   | Variable         |
|             | CPH 528    | Service Learning for MPH Students                             | 3                |
|             | CPH 529    | MPH Capstone Experience                                       | 3                |

# COURSE DESCRIPTIONS

## **BIostatISTICS (BIOS)**

### **BIOS 806/CPH 506 Biostatistics I (3 credits)**

This course is designed to prepare the graduate student to understand and apply biostatistical methods needed in the design and analysis of biomedical and public health investigations. The major topics to be covered include types of data, descriptive statistics and plots, theoretical distributions, probability, estimation, hypothesis testing, and one-way analysis of variance. A brief introduction to correlation and univariate linear regression will also be given. The course is intended for graduate students and health professionals interested in the design and analysis of biomedical or public health studies.

**Prerequisite:** Undergraduate or graduate statistics course or permission of instructor

While successful completion of an undergraduate or graduate statistics course is not required for admission into the MPH program, students enrolling for BIOS 806/CPH 506 Biostatistics I must have successfully completed a statistics course or obtain permission of the instructor.

#### **Requirements for the prerequisite course:**

- The prerequisite statistics course must have been completed within 5 calendar years of registering for Biostatistics 806/CPH 506.
- The student must have received the equivalent of a B or above (3.00 or higher on the University of Nebraska grade scale) in the course.

#### **Permission of the instructor:**

- The instructor reserves the right to waive the prerequisite requirements for students who can demonstrate familiarity with basic statistical concepts because of work or research experience.

#### **Some suggested undergraduate statistics courses are:**

##### **Omaha:**

UNO: Psyc 2130 Statistics for Behavioral Sciences  
Stat 3000 Statistical Methods I  
Soc 2130 Basic Statistics  
HPER 8030 (graduate level) Research in Health, Physical Education and Recreation  
HED 8080 (Recommended for MPH students) Topics in Health Education, Research in Public Health

Metropolitan Community College: Math 1410 Statistics

**Lincoln:**

UNL: Stat 218 Introduction to Statistics

Southeast Community College: Math 1180 Elementary Statistics

**BIOS 808/CPH 650 Biostatistics II (3 credits)**

This course is designed to prepare the student to understand and apply advanced biostatistical methods needed in the design and analysis of biomedical and public health investigations. The major topics to be covered include multiple linear regression, analysis of covariance, logistic regression, survival analysis, and repeated measures analysis.

**Prerequisites:** BIOS 806/CPH 506 or an equivalent course. The course is intended for graduate students and health professionals interested in the design and analysis of biomedical and public health studies.

**BIOS 810/CPH 651 Introduction to SAS Programming (3 credits)**

This course is an introduction to programming for statistical and epidemiologic analysis using the SAS Software System. Students will learn to access data from a variety of sources (e.g., the web, Excel, SPSS, data entry) and create SAS datasets. Data management and data processing skills, including concatenation, merging and sub-setting data, as well as data restructuring and new variable construction using arrays and SAS functions will be taught. Descriptive analysis and graphical presentation will be covered. Concepts and programming skills needed for the analysis of case-control studies, cohort studies, surveys, and experimental trials will be stressed. Simple procedures for data verification, data encryption, and quality control of data will be discussed. Accessing data and summary statistics on the web will be explored. Through in-class exercises and homework assignments, students will apply basic informatics techniques to vital statistics and public health databases to describe public health characteristics and to evaluate public health programs or policies. Laboratory exercises, homework assignments, and a final project will be used to reinforce the topics covered in class. The course is intended for graduate students and health professionals interested in learning SAS programming and accessing and analyzing public use datasets from the web.

**Prerequisites:** BIOS 806/CPH 506 or an equivalent introductory statistics course; EPI 821/CPH 621; and instructor permission.

**BIOS 818/CPH 652 Biostatistical Methods II (3 credits)**

This course is designed to prepare the graduate student to analyze continuous data and interpret results using methods of linear regression and analysis of variance (ANOVA). The major topics to be covered include simple and multiple linear regression model specification and assumptions, specification of covariates, confounding and interactive factors, model building, transformations, ANOVA model specification and assumptions, analysis of covariance (ANCOVA), multiple comparisons and methods of adjustment, fixed and random effect specification, nested and repeated measures designs and models, and diagnostic methods to assess model assumptions. Interpretation of subsequent analysis results will be stressed. Concepts will be explored through critical review of the biomedical and public health literature, class exercises, an exam, and a data analysis project. Statistical analysis software, SAS (SAS Institute Inc., Cary, NC, USA.), will be used to implement analysis methods. The course is intended for graduate students and health



professionals who will be actively involved in the analysis and interpretation of biomedical research or public health studies.

**Prerequisites:** Instructor permission; calculus (including differential and integral calculus); BIOS 806/CPH 506 Biostatistics I or an equivalent statistics course; BIOS 810/CPH 651 Introduction to SAS Programming, or equivalent experience with SAS programming.

### **BIOS 823/CPH 653 Categorical Data Analysis (3 credits)**

This course surveys the theory and methods for the analysis of categorical response and count data. The major topics to be covered include proportions and odds ratios, multi-way contingency tables, generalized linear models, logistic regression for binary response, models for multiple response categories, loglinear models, and simple mixture models for categorical data.

Interpretation of subsequent analysis results will be stressed. Concepts will be explored through critical review of the biomedical and public health literature, class exercises, an exam, and a data analysis project. Computations will be illustrated using SAS statistical software (SAS Institute Inc., Cary, NC, USA.). The course is intended for graduate students and health professionals who will be actively involved in the analysis and interpretation of biomedical research or public health studies.

**Prerequisites:** instructor permission, Biostatistical Methods I, BIOS 816/CPH 516, or an equivalent introductory statistics course, and Biostatistical Methods II, BIOS 818/CPH 652, or an equivalent advanced statistics course.

### **BIOS 824/CPH 654 Survival Data Analysis (3 credits)**

The course teaches the basic methods of statistical survival analysis used in clinical and public health research. The major topics to be covered include the Kaplan-Meier product-limit estimation, log-rank and related tests, and the Cox proportional hazards regression model.

Interpretation of subsequent analysis results will be stressed.

**Prerequisites:** Instructor permission; calculus (including differential and integral calculus); BIOS 806/CPH 506 Biostatistics I or BIOS 816/CPH 516 Biostatistical Methods I or an equivalent statistics course; BIOS 810/CPH 651 Introduction to SAS Programming, or equivalent experience with SAS programming.

### **BIOS 825/CPH 655 Correlated Data Analysis (3 credits)**

This course surveys the theory and methods for the analysis of correlated, continuous, binary, and count data. The major topics to be covered include linear models for longitudinal continuous data, generalized estimating equations, generalized linear mixed models, impact of missing data, and design of longitudinal and clustered studies. Interpretation of subsequent analysis results will be stressed. Concepts will be explored through critical review of the biomedical and public health literature, class exercises, two exams, and a data analysis project. Computations will be illustrated using SAS statistical software (SAS Institute Inc., Cary, NC, USA.). The course is intended for graduate students and health professionals who will be actively involved in the analysis and interpretation of biomedical research or public health studies.

**Prerequisites:** Instructor permission and Biostatistics BIOS 823/CPH 653.

### **BIOS 835/CPH 517 Design of Medical Health Studies (3 credits)**

This course is designed to prepare the graduate student to understand and apply principles and methods in the design of biomedical and public health studies, with a particular emphasis on

randomized, controlled clinical trials. The major design topics to be covered include sample selection, selecting a comparison group, eliminating bias, need for and processes of randomization, reducing variability, choosing endpoints, intent-to-treat analyses, sample size justification, adherence issues, longitudinal follow-up, interim monitoring, research ethics, and non-inferiority and equivalence hypotheses. Data collection and measurement issues also will be discussed. Communication of design approaches and interpretation of subsequent analysis results also will be stressed. Concepts will be explored through critical review of the biomedical and public health literature, class exercises, and a research proposal. The course is intended for graduate students and health professionals interested in the design of biomedical or public health studies.

**Prerequisites:** Biostatistics I, BIOS 806/CPH506, or an equivalent introductory statistics course, and instructor permission.

### **BIOS 896/CPH 677 Research Other Than Thesis (Variable)**

This course is for more advanced students who wish to pursue their research interests in selected areas of Medical Humanities.

### **BIOS 898/CPH 679 Special Topics for Masters Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

### **BIOS 918 Biostatistical Linear Models: Theory and Applications (3 credits)**

This course on linear models theory includes topics on linear algebra, distribution theory of quadratic forms, full rank linear models, less than full rank models, ANOVA, balanced random mixed models, unbalanced models and estimation of variance components.

**Prerequisites:** Linear algebra, BIOS 818, one year of mathematical statistics, and instructor permission

### **BIOS 921 Advanced Programming for SAS (3 credits)**

The objective of this course is to prepare students in advanced SAS programming. The main topics comprise advanced SAS programming techniques, SAS macro programming, using SQL with SAS, and optimizing SAS programs, which are similar to those covered on the SAS Advanced Programmer Exam offered through the SAS Institute, Inc.

**Prerequisites:** BIOS 810 or equivalent course and instructor permission.

### **BIOS 924 Biostatistical Theory and Models for Survival Data (3 credits)**

The course teaches the statistical theory and models for survival data analysis used in biomedical and public health research. Major topics include parametric, nonparametric and semi-parametric theory and models. The statistical software SAS and R will be used.

**Prerequisites:** STAT 980 Advanced Probability provided by UNL, STAT 982-983 Advanced Inference I & II provided by UNL, BIOS 824 Survival Data Analysis (or their equivalent), and instructor permission required.

**BIOS 925 Theory of Generalized linear and Mixed Models in Biostatistics (3 credits)**

This course focuses on the theory of generalized linear models for both continuous and categorical data. Major topics include generalized linear models, linear mixed models, and generalized linear mixed models.

**Prerequisite:** BIOS 918 or equivalent

**BIOS 935 Semiparametric Methods for Biostatistics (3 credits)**

This course teaches the fundamental theory and application of semiparametric methods in biomedical and public health studies. The major topics include additive semiparametric models, semiparametric mixed models, generalized semiparametric regression models, bivariate smoothing, variance function estimation, Bayesian semiparametric regression, and spatially adaptive smoothing.

**Prerequisite:** BIOS 925, familiarity with the software R and SAS; and instructor permission

**BIOS 970 Seminar (1 credit)****BIOS 996 Directed Readings and Research (credits 1-9)**

Independent Study

**Prerequisites:** Doctoral student status or program permission

**BIOS 998 Special Topics for Doctoral Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**BIOS 999 Biostatistics PhD Dissertation Research (1-15 credits)**

The dissertation represents original research on a defined problem in biostatistics. The PhD dissertation must be a significant, original piece of biostatistical research that makes a contribution to knowledge in the field.

**Prerequisites:** Instructor permission.

**ENVIRONMENTAL, AGRICULTURAL, AND OCCUPATIONAL HEALTH SCIENCES (ENV)****ENV 800/CPH 590 Elements of Industrial Safety for Health Sciences (3 credits)**

This course is an introduction to safety in the general work environment, with emphasis on selected OSHA safety regulations, human costs of injuries, safety programs and management, field trip work observations, risk assessment, and hazard/risk communications. No previous experience or coursework in safety is required.

**Prerequisites:** ENV 892/CPH 503 or equivalent introductory environmental health sciences course; instructor permission.

**ENV 802/CPH 591 Occupational Health and Safety for Health Science (3 credits)**

This course is an introduction to fundamental concepts, methods, and application of occupational and safety for various industrial settings, including hazard analysis and control, OSHA regulations, worker's compensation, safety program elements, and safety and health management.

**Prerequisites:** Graduate student status in health sciences or related discipline and instructor permission.

**ENV 804/CPH 592 Human Factors and Ergonomics for Work Environments (3 credits)**

This course is an introduction to fundamental concepts of physical work, human abilities, and capabilities (ergonomics), including psychological and cognitive aspects of human work performance (human factors) for the reduction of occupational injuries and illnesses, reduced costs, productivity improvement, worker well-being and longevity, quality of work life, and job satisfaction.

**Prerequisites:** Graduate student status in health sciences or related discipline and instructor permission.

**ENV 810/CPH 593 Principles of Occupational and Environmental Health (3 credits)**

This course is designed to allow students to develop an understanding of the human health outcomes associated with environmental and occupational exposures. Students will learn how key issues in environmental health and environmental and occupational medicine are approached from a public health perspective.

**Prerequisites:** ENV 892/CPH 503 or equivalent introductory environmental health sciences course; instructor permission.

**ENV 816/CPH 594 Environmental Exposure Assessment (3 credits)**

The course will allow students to develop their understanding and knowledge of exposure assessment methods and the application of these methods to substantive issues in occupational and environmental health. The course emphasizes methodological principles and good practice, and highlights the many similarities and some interesting differences between occupational and environmental health.

**Prerequisites:** ENV 892/CPH 503 or equivalent introductory environmental health sciences course; BIOS 806/CPH 506 or equivalent introductory biostatistics course; instructor permission.

**ENV 840/CPH 595 Sustainability, Climate Change and Health (3 credits)**

This course provides an overview of the emerging issue of climate change as it affects society (with a special emphasis on public health), and the development of strategic frameworks of action to prepare for a sustainable and healthy future. The course is divided into three broad areas: frameworks and fundamentals (basic concepts and root causes of climate change and environmental problems); sector assessments (root causes and system impacts; measurement and monitoring); and action (approaches to intervention, core competencies, and communication).

**ENV 850 Occupational Biomechanics (3 credits)**

This course is designed for graduate students, health professionals, or fellows to recognize occupational health and safety through learning of biomechanical principles for common work

tasks. It provides an introduction to biomechanical measurement techniques and introduces methods available for reducing physical stressors and musculoskeletal disorders in the workplace. This course will also ground students with a practical understanding of occupational health. Major topics include (1) biomechanical, psychophysical, physiological, and integrated approaches to perform analyses of physical demands; (2) anatomy and etiology of lower back injuries and upper limb disorders; (3) principles of redesigning tasks to reduce the risk of injury; and (4) preemployment screening and legislated guidelines. Students and health professionals will acquire basic knowledge of human anatomy, physiology, human capacities and limitations, bioinstrumentation, and workplace evaluation methods. This knowledge will enable students to explore ideas for designing and modifying workplaces, tasks, and tools to promote occupational health, while maintaining or improving human performance outcomes. The course also serves as a foundation for students who are interested in doing research in occupational biomechanics.

**Prerequisites:** (1) an undergraduate or graduate level course in biomechanics, human physiology and anatomy, or equivalent and (2) an undergraduate or graduate level course in biostatistics and research design or equivalent.

### **ENV 875/CPH 596 Chemical Carcinogenesis (2 credits)**

This course is designed to prepare graduate students to evaluate the carcinogenic potential of chemicals and carry out research related to the role of chemicals in the induction of cancer. Major topics to be covered include the basic concepts of chemical carcinogenesis, major classes of chemical carcinogens, the metabolic activation and mode of action of chemical carcinogens, mechanisms of tumor initiation, DNA damage leading to oncogenic mutations, and cancer epidemiology. The course is intended for graduate students and health professionals who will be following research or administrative careers.

**Prerequisites:** College-level courses in chemistry and biochemistry and permission of the instructor.

### **ENV 888/CPH 597 Principles of Toxicology (3 credits)**

This course will introduce students to the principles and methods that are used to determine whether an adverse effect is a result of exposure to a specific agent. A primary purpose of toxicology is to predict human toxicity, and human health risk assessment relies heavily on toxicological data obtained from animal studies. This course covers basic mechanisms of toxicity as they pertain to whole organisms, organ systems, and specific toxic agents.

**Prerequisites:** None.

### **ENV 892/CPH 503 Public Health, Environment, and Society (3 credits)**

The purpose of this course is to introduce the students to environmental factors, including biological, physical, and chemical factors, which affect the health of a community. The main focus of the course will be the effects of exposures that have been associated with human health and environmental problems in the Midwest, specifically water and air pollutants related to animal feeding operations, arsenic in ground water, pesticides, herbicides, lead, and radiation. The effects of global warming, ergonomic problems in the meat packing industry, and occupational and environmental problems in health care will also be discussed.

**Prerequisites:** None.

**ENV 896/CPH 617 Research Other Than Thesis (Variable)**

This course is for more advanced students who wish to pursue their research interests in selected areas of Medical Humanities.

**ENV 898/CPH 619 Special Topics for Masters Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**ENV 899 Master's Thesis****ENV 902 Special Topics for Doctoral Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**ENV 920 Xenobiotics in the Environment (3 credits)**

Fate and ecotoxicological impacts of biologically foreign compounds in soil-water-plant environments; uptake, mechanisms of toxicity and metabolism in plants and other biota. Herbicides and other pesticides.

**Prerequisite:** Recommend one course each in organic chemistry, soil science, biochemistry, plant physiology, microbiology, and ecology.

**ENV 950 Advanced Toxicology (3 credits)**

This course deals with the adverse effects of chemicals on biological systems. Physiological and biochemical mechanisms of toxicity at the cellular and subcellular levels will be emphasized.

**Prerequisite:** Permission from instructor and ENV 888/CPH 597 or equivalent.

**ENV 970 Seminar (1 credit)****ENV 996 Directed Readings and Research (credits 1-9)**

Independent Study

**Prerequisites:** Doctoral student status or program permission

**ENV 999 Doctoral Dissertation (Variable)****EPIDEMIOLOGY (EPI)****EPI 801/CPH 641 Introduction to Cancer Epidemiology (3 credits)**

This course will review the basic concepts of cancer etiology and carcinogenesis. It will provide the background on social demographic magnitude of cancer, basic concepts of cancer biology and the causes of cancer. Methods of designing and implementing research studies and evaluating genetic, environmental and lifestyle factors, such as tobacco, alcohol, radiation, chemicals, pharmaceuticals, viruses and nutrition will be reviewed.

**Prerequisites:** CPH 504 or permission of instructor

**EPI 802/CPH 642 Cancer Epidemiology in Special Populations (3 credits)**

The focus of this course will be on epidemiologic, genetic, environmental, and lifestyle risk factors of cancer in international and ethnically-diverse populations. Topics will include in-depth discussion of incidence, mortality, and survival of cancer in special populations, distinct aspects of environmental, genetics and lifestyle factors and research methods for conducting epidemiologic studies on cancer in special populations.

**Prerequisites:** CPH 504 Epidemiology in Public Health

**EPI 803/CPH 643 Topics in Cancer Prevention I**

This seminar provides an overview of the current scientific basis for cancer prevention and control in humans, introduces current methods of determining risk factors along with their subsequent alteration, and suggest future opportunities through integration of selected areas of basic sciences with classic etiologic research to define and quantify risk factors. Current opportunities for early detection of preclinical cancer will also be presented.

**Prerequisites:** none

**EPI 804/CPH 644 Topics in Cancer Prevention II**

This seminar provides an overview of research applications in cancer prevention and control in humans, introduces current methods of determining risk factors along with their subsequent alteration, and suggest future opportunities through integration of selected areas of basic sciences with classic etiologic research to define and quantify risk factors. Current opportunities for early detection of preclinical cancer will also be presented.

**Prerequisites:** none

**EPI 811/CPH631 Emergency Preparedness: Protection (3 credits)**

This course is designed to introduce the student to emergency preparedness concepts, in preparation for naturally occurring disasters, intentional acts of terrorism and new emerging infectious disease threats. Students will explore Critical Infrastructure protection, agriculture and food safety, surveillance and detection of biological agents among other topics.

**Prerequisites:** None

**EPI 812/CPH 620 Chronic Disease Epidemiology (3 credits)**

The target audience for this course includes, but is not limited to, student researchers and practitioners in the field of public health. The course will cover risk factors for major chronic diseases such as cancer, diabetes, musculoskeletal disease, and chronic lung disease. Through the course, students will learn advanced concepts and methodology in chronic disease epidemiology research, including disease surveillance and etiologic and outcomes research. Students will also gain experience developing a proposal to conduct an etiological study of a selected chronic disease.

**Required prerequisites:** Epidemiology I (EPI 820/CPH504), Biostatistics I (BIOS 806/CPH506).

**Recommended coursework:** Epidemiology II (EPI 821/CPH621), Biostatistics II (BIOS 808/CPH650).

**EPI 820/CPH 504 Epidemiology in Public Health (3 credits)**

The objective of the course is to understand the application of survey and research methodology in epidemiology, especially in the community setting. Theoretical aspects will be taught as an integral part of understanding the techniques of study design and community survey. Concepts to be covered include measure of disease occurrence, measures of disease risk, study design, assessment of alternative explanations for data-based findings, and methods of testing or limiting alternatives. Students will be expected to address an epidemiological question of interest to them, first developing the hypothesis and conducting a literature search, then developing a study design and writing, in several stages, a brief proposal for the study.

**Prerequisites:** none.

**EPI 821/CPH 621 Applied Epidemiology (3 credits)**

This course is designed to provide advanced-level graduate students with epidemiologic data analysis, interpretation and presentation skills. The course presents advanced principles and methods of Epidemiology through the use of simulated and actual research data. The course is suitable for both advanced-level master's students and doctoral students in epidemiology and related fields. The primary goal is to provide working knowledge of the fundamentals of epidemiology to graduate students who wish to further their careers in public health research.

**Prerequisites:** Epidemiology I (EPI 820/CPH504).

**EPI 825/CPH 623 Infectious Disease Epidemiology (3 credits)**

This course is an introductory, generic course which presents basic infectious disease epidemiology principles and methods. The purpose of the course is to introduce students to concepts of epidemiology as they relate to infectious disease. Students who wish to know how to conduct population studies in infectious disease will be better prepared through this course. This course will produce graduates from UNMC who are better prepared to meet the challenges of infectious disease. Public health is a cornerstone for healthy living, and improving the health of communities is its broad-based goal. Dealing with infectious disease is intricately related to this goal.

**Prerequisites:** EPI 820/CPH 504; Introduction to Basic Epidemiology.

**EPI 830/CPH 624 Advanced Infectious Disease Epidemiology (3 credits)**

This course is designed to prepare graduate students, professionals, and fellows to use mathematical models for better understanding of epidemics and examine research methods for global infectious diseases. Major topics to be covered include global infections, including TB, malaria, HIV/AIDS, STIs; research methodology in infectious disease, data analysis, and interpretation; use of mathematical models for prediction and prevention of epidemics; and review of biological, clinical, and public health issues relevant to understanding disease transmission and prevention. The course is intended for graduate students and health professionals who will be engaging in infectious disease investigation, prevention, and research.

**Prerequisites:** EPI 820/CPH 504-Epidemiology: Theory and Applications and EPI 825/CPH 623-Infectious Disease Epidemiology.



**EPI 831/CPH 625 Physical Activity Epidemiology (3 credits)**

This course is designed to prepare graduate students to understand and apply physical activity epidemiologic methods to biomedical and public health investigations. Major topics to be covered include core concepts in physical activity epidemiologic methods; research design; data reporting and interpretation; the role of physical activity in health outcomes; and promoting physical activity and healthy lifestyles through intervention research. Concepts will be explored using the biomedical and public health literature, class exercises, exams, and projects. The course is intended for graduate students and health professionals who will be involved in biomedical research or public health studies that integrate physical activity as an outcome, exposure, or confounding variable into the research design.

**Prerequisites:** Instructor permission and BIOS 806/CPH 506 or BIOS 816/CPH 516 and EPI 820/CPH504 within the past 5 years resulting in a grade of B- or better.

**EPI 835/CPH 626 Health Information and Surveillance for Public Health Practice (3 credits)**

This course focuses on the role of health information and health information systems for the practice of national, state- and community-level public health.

**Prerequisite:** BIOS 806/CPH 506 or EPI 820/CPH 504

**EPI 840/CPH 627 Epidemiological Measurements and Research in Maternal & Child Health (2 credits)**

This course will emphasize the methodological aspects of Maternal and Child Health (MCH). It will address indicators and measurements of health and disease, types of studies needed or used in this field, to address the life course perspective and the study of topical issues.

**Prerequisites:** EPI 820/CPH 504, BIOS 806/CPH 506 and HPRO 880/CPH 546

**EPI 845/CPH 628 Principles of Epidemiologic Research (4 credits)**

This course is a comprehensive course in the concepts, principles and methods of population-based epidemiologic research. The course, which expands on topics covered in EPI 821/CPH 621(Advanced Research and Methods), is both theoretical and quantitative, with emphasis on study design, quantitative measures, statistical analysis, data quality, sources of bias, and casual inference.

**Prerequisites:** EPI 821/CPH 621 and BIOS 806/CPH 506. An introductory course to SAS programming is recommended.

**EPI 846/CPH 646 Mental Health Epidemiology (3 credits)**

The course will give an overview of epidemiology of mental disorders and discussion of epidemiologic research methods used to study mental disorders. Students will gain experience in conceptualizing and preparing a research proposal in psychiatric epidemiology. The target audience for this course includes students, researchers and practitioners in the fields of public health, medicine, nursing and other health science disciplines.

**Prerequisites:** EPI 820/CPH 604 Epidemiology in Public Health

**EPI 896/CPH 647 Research Other Than Thesis in Epidemiology (Variable 1-4)**

This course is for more advanced students who wish to pursue their research interests.

**EPI 898/CPH 649 Special Topics for Masters Student (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**EPI 899 Master Thesis (Variable)****EPI 900 Epidemiologic Analysis of Binary and Time-to-Event-Data (3 credits)**

Analysis of data from common epidemiologic study designs using logistic, proportional hazards, and Poisson regression models. Covers model building, estimation, assessment of confounding and modification and threats to validity.

**Prerequisites:** EPI 845, BIOS 818 and a course (e.g. BIOS 810) or equivalent in statistical program.

**EPI 905 Critical Evaluation of Epidemiologic Research (3 credits)**

This course is designed to prepare doctoral students to better understand the advanced issues in the analysis and interpretation of epidemiologic data. This course will focus on selected theoretical and methodological issues related to the analysis of epidemiologic data with the purpose of drawing causal inference. The topics covered will include long-standing fundamental issues as well as new techniques or novel epidemiologic applications of methods used in other disciplines. **Prerequisites:** EPI 821, EPI 845 and BIOS 806

**EPI 910 Research Grant Proposal Development (2 credits)**

This course is designed to provide graduate and professional students with a practical experience writing a research grant proposal for submission to the National Institutes of Health (NIH). Students will learn how to formulate research questions, develop study aims, and build research study designs closely tied to analysis plans and outcomes. Students will also participate in a mock NIH study section working inactively with faculty members.

**Prerequisites:** None

**EPI 932 Epidemiology and Pathophysiology of Disease (3 credits)**

This course will emphasize the in depth pathophysiology of diseases and its application to epidemiologic research. This will enable students to better understand the individual disease presentations, disease biology, natural history and disease progression in individual as well as in the populations. Ultimately, course will prepare students to conduct research or practice epidemiology and public health.

**Prerequisites:** undergraduate physiology course or instructor permission.

**EPI 936 Infectious Disease and Cancer (3 credits)**

The objective of this course is to adapt infectious disease epidemiology theories and methods to current relevant problems in infectious disease and cancer. The course has a focus on emerging infectious agents and health problems and also applies them to the study of infectious agents that are related to cancers. The course is designed to prepare participants to conduct research and practice infectious disease epidemiology.

**Prerequisites:** EPI 820/CPH 504

**EPI 941 Epidemiologic Methods in applied Clinical Genetics I (1 credit)**

This course is designed to prepare the graduate or professional student on the theory and methods of genetics of complex diseases using association studies. Major topics include: Mendelian inheritance, design strategies for genetics association studies, bias in genetic studies and population stratification, SNP selection, genotype, diplotype and haplotype analysis, linkage disequilibrium, Hardy-Weinberg equilibrium (HWE) and clinical genetics.

**Prerequisites:** EPI 821/CPH 621 or EPI 820/CPH 504 or BIOS 806/CPH 506 or equivalent courses.

**EPI 942 Epidemiologic Methods in applied Clinical Genetics II (1 credit)**

This course is designed for graduate or professional students and extends the theory and methods of genetics of complex diseases covered in EPI 931. Major topics include: pharmacogenetics, gene-gene and gene-environment and interactions, clinical genetic screening and counseling, ethics of human genetic studies, state of the art genotyping methods and hands-on data analysis using specialized genetics software.

**Prerequisites:** EPI 941

**EPI 945 Epidemiologic Research Methods (4 credits)**

This course is a comprehensive course in the concepts of methods of epidemiologic research. The course is theoretical and practical, with emphasis on primary and secondary research design, random and systemic error, impact of complex sampling on statistical analysis, and hands-on SAS categorical analysis, logistic regression and survival analysis.

**Prerequisites:** BIOS 806/CPH 506 or equivalent introductory biostatistics course; EPI 821/CPH 621 or equivalent introductory epidemiology course; BIOS 810/CPH 651 or equivalent introductory SAS programming course is strongly recommended.

**EPI 970 Epidemiology Doctoral/Departmental Seminar (1 credit)**

This seminar is a series of scientific sessions on current topics exploring advanced concepts and methods in epidemiology. The course will promote the development of knowledge of epidemiologic methods, analytic approaches, disease etiology, natural history, and current issues related to the application of these concepts for conducting epidemiologic research and practice.

**Prerequisites:** Standing as a doctoral student in Epidemiology

**EPI 996 Directed Readings and Research (credits 1-9)**

Independent Study

**Prerequisites:** Doctoral student status or program permission

**EPI 998 Special Topics for Doctoral Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**EPI 999 Epidemiology Dissertation Research (1-15 credits)**

The dissertation represents original and significant research on a defined epidemiology problem. This research is the culmination of a training process designed to ready the student to do independent research including development of a research question, data collection, analysis, and interpretation.

**Prerequisites:** Instructor permission.

**HEALTH PROMOTION, SOCIAL & BEHAVIORAL HEALTH SCIENCES (HPRO)****HPRO 802/CPH 530 Cultural Competence and Professionalism (3 credits)**

This is a graduate-level course designed to assist public health professionals and health care providers in understanding the impact and professional implications of interactions between diverse cultures, including language and belief systems in relation to health, health care delivery, health outcomes, and health disparities.

**Prerequisites:** Graduate standing in the College of Public Health or permission from the instructors.

**HPRO 803/CPH 531 Research Methods in HPER (3 credits)**

The course deals with scientific writing, research techniques, statistics, computer application, and quantitative research design and technique. Considerable emphasis is placed on evaluation of research in scholarly publications. A research proposal is written as one of the course requirements.

**Prerequisites:** None. Not open to nondegree students.

**HPRO 805/CPH 505 Applied Research in Public Health (3 credits)**

The purpose of this course is to provide an introduction to research methods in public health. Students will learn about the steps of scientific research. The course will cover topics including formulation of a research problem; sampling and research design; dissemination of research findings; and grant proposals. These topics will be discussed in detail in the context of critically reviewing several peer-reviewed scientific articles. Research ethics is large component of the course. Students will complete CITI Trainings as well as learn about institutional Review Board (IRB) processes and applications.

**Prerequisites:** None.

**HPRO 807/CPH 540 Introduction to Community-Based Participatory Research (3 credits)**

This course is designed to prepare the graduate student, professional student, or fellow to utilize community-based participatory research (CBPR) principles in research, evaluation, and practice. A philosophical and practical approach will guide the examination of CBPR and its use. Core areas of discussion will include (1) the theoretical and historical grounding of CBPR, (2) ethical issues in the use of CBPR and developing cultural humility in working with community partners (3) developing sustainable CBPR relationships among all partners, (4) methodological considerations, and (5) promoting social justice and policy change through CBPR. Course participants will engage in both critical thought-provoking discussions on the principles of CBPR and the application of CBPR to research and/or evaluation in a culturally relevant manner. Hands-on application will occur through conducting a CBPR project by working collaboratively with a defined community and other students in the course. The course is intended for graduate students and health professionals who will be actively involved in addressing community health issues through research and evaluation. CBPR is not a methodology, but a philosophical approach to conducting research; therefore the course assumes students will come already grounded in multiple research methods, both qualitative and quantitative.

**Prerequisites:** HPRO 805/HED 8050/CPH 505 (or equivalent course) or permission of the instructor; permission will require a demonstrable knowledge of research methods.

**HPRO 808/CPH 555 Public Health Law (3 credits)**

Conceptual foundations of public health law, including constitutional considerations, federal & state statutes & regulations, tort (civil) law, balancing competing interests (e.g. civil liberties v. monitoring, reporting, persuading, regulating at various levels), current issues & emerging trends.

**Prerequisite:** Law students must have completed first year of law school.

**HPRO 809/CPH 545 Introduction to Health Disparities and Health Equity (3 credits)**

The course provides a critical understanding of health disparities in the U.S. and examines the underlying social, cultural, biological, behavioral, economic and political factors that contribute to such disparities in society.

**Prerequisite:** Instructor permission required.

**HPRO 810/CPH 550 Emergency Preparedness: Prevention (3 credits)**

This course is designed to prepare the graduate student to work in a world where emergency preparedness and response skills are essential to the public health infrastructure, in preparation for naturally occurring disasters, intentional acts of terrorism, and new emerging infectious disease threats. **Prerequisites:** None.

**HPRO 812/CPH 553 Emergency Preparedness: Response (3 credits)**

This course is designed to introduce the graduate student disaster response related concepts such as Responder Safety and Health, Citizen Evacuation, Weapons of Mass Destruction, and Medical Surge among other topics

**Prerequisites:** None

**HPRO 813/CPH 554 Emergency Preparedness: Respond and Recover (3 credits)**

This course is designed to introduce the graduate student to emergency preparedness concepts. Students will explore disaster response related concepts such as Medical Surge, Behavioral Health and Mass Fatalities, in addition to short and long term disaster recovery topics.

**Prerequisites:** None

**HPRO 815/CPH 532 Issues in Public Health: Past and Present (3 credits)**

The purpose of this course is to acquaint students with key historical incidents, important historical and philosophical themes, and key philosophical controversies in public health.

**Prerequisites:** None.

**HPRO 817/CPH 551 Community Oriented Primary Care (COPC): Principles and Practice (3 credits)**

This course will prepare students for the community orientation of primary health care services. It is intended for students interested in the delivery of health care with a community orientation and the integration of individual clinical care and public health.

**Prerequisites:** None

**HPRO 818/CPH 552 Opportunities and Challenges in the Applicability of Community Oriented Primary Care (COPC) (3 credits)**

The course is designed to prepare public health students on the critical analysis of the organization (levels of care, public/private partnership, insurance, coverage, access) and functions (curative/preventive, general practice, family medicine, specialties) of primary care services to be able to identify the opportunities and the challenges in the applicability of Community Oriented Primary Care (COPC).

**Prerequisite:** COPC: Principles and Practice (CPH 551/HPRO 817), Instructor Permission

**HPRO 825/CPH 533 Health Care Ethics (3 credits)**

This course uses selected topics to outline the history, theory, and methods of health care ethics. It is intended as a core course for graduate students in ethics and related fields--for bioethics teachers, administrators, policy makers, clinicians, and public health professionals.

**Prerequisites:** None.

**HPRO 827/CPH 534 Interventions in Health Promotion (3 credits)**

This course will provide health promotion students with an opportunity to investigate, contrast, develop, implement, and evaluate a variety of intervention activities, to be applied in different settings. Theories regarding methods to enhance behavior change and teaching strategies to meet the health needs of a diverse population will be explored.

**Prerequisites:** None.

**HPRO 830/CPH 500 Foundations of Public Health (3 credits)**

This is an introductory survey course, which will ensure that all public health students, within their first full year of study, are exposed to the fundamental concepts and theories that provide the basis for the body of knowledge in the field of public health. This course will prepare students to work in public health with a sound theoretical, conceptual, and historical basis for their work.

**Prerequisites:** None.

**HPRO 831/CPH 535 Physical Activity Epidemiology (3 credits)**

This course is designed to prepare the graduate student to understand and apply physical activity epidemiologic methods to biomedical and public health investigations. The major topics to be covered include core concepts in physical activity epidemiologic methods; research design; data reporting and interpretation; the role of physical activity on health outcomes; and promoting physical activity and healthy lifestyles through intervention research. Concepts will be explored using the biomedical and public health literature, class exercises, exams, and projects. The course is intended for graduate students and health professionals who will be involved in biomedical research or public health studies that integrate physical activity as an outcome, exposure, or confounding variable into their research design.

**Prerequisites:** Instructor permission and BIOS 806/CPH 506 or BIOS 816/CPH 516 and EPI 820/CPH504 within the past 5 years resulting in a grade of B- or better.

**HPRO 840/CPH 536 Health Promotion Program Planning (3 credits)**

An in-depth application of the health promotion program planning process utilizing a comprehensive model called PRECEDE-PROCEED. Students submit six papers applying each phase of this model: social diagnosis, epidemiological diagnosis, behavioral/ environmental diagnosis, educational/organizational diagnosis, administrative/policy diagnosis, and evaluation at the process, impact and outcome levels.

**Prerequisites:** None.

**HPRO 841/CPH 541 Introduction to Social Marketing and Health Communication (3 credits)**

This course provides an introduction to the basic concepts of social marketing and health communication principles including the application to health behaviors and public health issues.

**Prerequisites:** None

**HPRO 842/CPH 542 Applied Social Marketing (3 credits)**

This course will explore the application of social marketing at the population, community, business and government levels. Students will examine the concepts of social marketing from perspectives of collaboration and co-creation, value and service driven design, and an ethical framework of dignity and honor.

**Prerequisites:** CPH 541

**HPRO 843/CPH 543 Health Literacy and Communication for Health Professionals (3 credits)**

This course is an in-depth study of health communication. Students will build competencies in health communication (from theory and practice) to promote individual and community health and wellbeing.

**Prerequisites:** none

**HPRO 844/CPH 544 Nutrition Across the Lifespan (3 credits)**

This course is designed to prepare graduate students to apply basic concepts in nutrition and metabolism to healthy lifestyle during each stage of the life cycle. The following topics will be covered: nutrition and health promotion; under-nutrition and over-nutrition; Dietary Guidelines; healthy diet for individuals and populations; public food and nutrition programs, and nutrition assessment within the framework of the life course perspective.

**HPRO 860/CPH 501 Health Behavior (3 credits)**

The purpose of this course is to study the theoretical foundations of health behavior. Students will develop an understanding of the determinants of health behavior, the models and theories that provide a framework for predicting health behavior, and the strategies employed to bring about behavioral changes for health and disease prevention in individuals and groups.

**Prerequisites:** None.

**HPRO 869/CPH 537 Sexual Health: Ontology, Research and Education (3 credits)**

This course is designed to prepare the graduate student, professional student, or fellow to address sexual health issues, particularly at the community level, through sound research and education practices. A social ecological approach will guide the examination of the topic with emphasis on social justice. Core areas of discussion will include (1) an ontological, socio cultural, and philosophical examination of sexuality, (2) a survey of groundbreaking and current research in sexuality with emphasis on the ethical issues in sex research, and (3) a study in issues related to the deployment of sexual health knowledge, particularly in communities experiencing disparities in sexual health. Course participants will learn to address sexual health issues in a culturally relevant manner through research and education.

**Prerequisites:** None; An undergraduate or graduate level course in human sexuality (such as HED 3080) within the last 5 years or comparable field experience is preferred.

**HPRO 875/CPH 538 Public Health Program Evaluation (3 credits)**

This course is designed to provide an overview of methods for evaluating public health programs. Students will learn methods of choosing appropriate evaluation designs and procedures for data collection, choosing, and developing survey items, and interpreting and describing evaluation results.

**Prerequisites:** None

**HPRO 880/CPH 546 Introduction to Maternal and Child Health (MCH) (3 credits)**

This course will introduce the life course approach in Maternal and Child Health (MCH), and address specific MCH topics (i.e. immunizations, nutrition, pre-term births) from the local, regional and global perspectives, and organization and policy issues in MCH care in the U.S.

**Prerequisites:** None



**HPRO 881/CPH 547 Advanced Maternal and Child Health (MCH) (3 credits)**

Critical analysis of current and emerging priority areas in Mother and Child Health (MCH), including biological, behavioral and health care issues, based on defining the problem, identifying gaps in population health or health care and discussing alternative approaches towards gap reduction.

**Prerequisites:** EPI 820/CPH 504, HPRO 860/CPH 501, HPRO 880/CPH 546

**HPRO 882/CPH 548 Child and Adolescent Growth and Development (2 Credits)**

This course is designed to introduce students to the study and assessment of child and adolescent growth and development from a public health perspective. Physical, neurological, psychological, and social development will be discussed.

**Prerequisites:** HPRO 880/CPH 546

**HPRO883/CPH 549 Women's Health (2 credits)**

This course is a graduate level course that provides students with an overview of women's health issues across the lifespan from a multidisciplinary perspective.

**Prerequisites:** None

**HPRO 895/CPH 539 Public Health Leadership and Advocacy (3 credits)**

This course incorporates public health leadership theory and practices, which are grounded in biomedical and social science and sanctioned by public law. Politics of communities and organizations is also included. Advocacy is emphasized as a key tool to secure funding and to help assure that local, state, and federal policy makers will adopt, implement, and maintain important public health regulations, policies and programs.

**Prerequisites:** 15 graduate credits or instructor permission.

**HPRO 896/CPH 557 Research Other Than Thesis (Variable)**

This course is for more advanced students who wish to pursue their research interests in selected areas of Medical Humanities.

**HPRO 898/CPH 559 Special Topics for Masters Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**HPRO 902 Complex Systems Thinking (3 credits)**

This course covers the major topics of systems thinking, including key terminology, general systems theory, systems analysis, systems mapping and dynamics, structural thinking, systems design and modeling, and finally applications of simulation models for policy decision making.

**Prerequisites:** For PhD students only or with instructor's permission

**HPRO 910 Humanistic Traditions in Qualitative Research (3 credits)**

The course provides a framework for a diverse group of qualitative research methods that emphasize approaches to inquiry drawn from the humanities, arts, and social sciences. The course focuses on the philosophical grounding of such inquiry, study designs, methodological implementation, analysis of findings and construction of concluding arguments.

**Prerequisites:** HPRO 805/CPH 505 Applied Research in Public Health or equivalent.

**HPRO 911 Strategic Systems Modeling and Dynamics**

This course integrates the theory and applications of the system dynamics modeling as it is used to support strategic decision making in complex social systems. It synthesizes the qualitative and quantitative mapping of the relevant system structures. This course covers system dynamics modeling processes, structures and behaviors of dynamic systems, tools for systems modeling and model validation and policy decision making. The overall purpose of the course is both to examine the general models of complex systems behavior and to gain qualitative and quantitative insights. In addition it aims to develop experiments for evaluating alternative policies in order to formulate ones which improve system behavior. It has three distinctive themes: the concept of information feedback, the use of computer simulation models to explore complex behavior and the need to work with the mental models of relevant system actors.

**Prerequisites:** HPRO 902 or Instructor Permission.

**HPRO 935 Research Ethics (3 credits)**

This course is designed to prepare the graduate student, professional student, or fellow to design research projects that respect human participants by understanding the ethical principles that serve as the foundation for sound research. Major topics to be covered include the history of research ethics, ethics of scientific design, participant selection and recruitment, risk/benefit assessments, informed consent, and independent review and oversight. The course will include discussion of clinical and translational research, community-based participatory research, and behavioral and social science research. The course will also introduce students to issues involved in research with vulnerable populations, such as pregnant women, children, and the decisional impaired. The course is intended for graduate students and health professionals who will be actively involved in the design, analysis, and interpretation of biomedical research or public health studies.

**Prerequisites:** None, although some experience with research design or practice (or a course in research design or practice) is preferred.

**HPRO 970 Seminar (1 credit)**

**Prerequisites:** Permission of instructor

**HPRO 996 Directed Readings and Research (credits 1-9)**

Independent Study

**Prerequisites:** Doctoral student status or program permission

**HPRO 998 Special Topics for Doctoral Students (Variable)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

### **HPRO 999 Health Promotion and Disease Prevention PhD Dissertation Research (Variable Credit)**

The dissertation represents a significant, original piece of research that makes a contribution to knowledge in the field of health promotion and Disease Prevention. It is the culmination of a training process designed to ready the student for independent investigation that typically includes development of a research question or public health intervention, data collection, analysis, interpretation and publication.

**Prerequisites:** Instructor Permission

### **HEALTH SERVICES RESEARCH & ADMINISTRATION (HSRA)**

#### **HSRA 810/CPH 560 U.S. Health Care System: An Overview (3 credits)**

This course will offer the student an overview of the health and medical care delivery system in the US. Topics covered from a historical, economic, sociological, and policy perspective include the following: social values in health care; need, use, and demand for services; providers of health services (people and places); public and private payment systems; alternate delivery systems; and models from other countries. Current health care reform proposals will also be addressed.

**Prerequisites:** None.

#### **HSRA 820/CPH 507 Global Applications in Public Health (3 credits)**

The course provides a survey of the field of global health, including health conditions, resources, and programs. The course deals with the application of the principles of public health to health problems of countries around the world, and global forces that affect health. Topics covered include global health policy, including tobacco control policies, comparative health systems, climate change, and environmental health; the global impact of infectious and chronic diseases; infant mortality; women's health; cultural issues in global health; global occupational health issues; and human rights and ethics in global health. The course is intended for graduate students in public health, health professionals and health professions students who seek an understanding of global public health issues.

**Prerequisites:** None. Instructor permission is required.

#### **HSRA 830/CPH 580 Health Care Organizational Theory and Behavior (3 credits)**

This course focuses on introductory level of organizational theory and organizational behavior in health services research. Organizational theory is a macro examination of organizations, focusing on the organization as a unit, and inter-organizational and environmental relationships. Organizational behavior is a micro approach to studying organizations, focusing on individuals in organizations as the unit of analysis.

**Prerequisites:** None

#### **HSRA 840/CPH 561 Public Budgeting (3 credits)**

The purpose of the course is to familiarize public administration students with the basic characteristics and features of public budgets and enable them to deal competently with them.

**Prerequisites:** None. Not open to non-degree students.

**HSRA 841/CPH 562 Human Resources Management in Health Organizations (3 credits)**

The course explores human resources management and workforce planning in healthcare organizations. Students will gain in depth knowledge of the legal environment and major rules and regulations governing recruitment, selection and retention processes, as well as methods and techniques used in job analysis and interviews and organizational development. Another major focus area will be given to health professions workforce planning, succession planning, health safety preparedness, global issues facing healthcare workforce and future trends affecting human resources in healthcare organizations. The course is intended for students who are enrolled in the MPH program and students from other graduate degree programs who have an interest in managing human resources in health organizations. **Prerequisites:** None. Not open to non-degree students.

**HSRA 853/CPH 563 Strategic Planning & Management in Public Health (3 credits)**

This course examines the theory and practice of strategic planning and management in public health, health services, and voluntary health and welfare organizations. Application of specific principles, concepts, and techniques of strategic planning and management for these organizations will be addressed. The roles and responsibilities of public health and health services administrators in developing, implementing, monitoring and revising strategy will also be examined. **Prerequisites:** Instructor permission.

**HSRA 860/CPH 564 Health Economics (3 credits)**

This course is designed to help students understand how the theories and models of economics can be applied to the study of health and health care. The examination of the markets (demand and supply) for health, health care and health insurance is stressed. In addition, the economic analytic tools such as economic evaluation of medicine will be introduced. The objective of this course is to equip students with the knowledge/tools to examine and analyze the problems/issues of health care from the perspective of economics.

**Prerequisites:** ECON 2200 (Principles of Economics-Micro) or its equivalent.

**HSRA 867/CPH 567 Health Policy Analysis & Evaluation (3 credits)**

This course will provide a framework for understanding how to analyze and evaluate the impact of health policies in public health and health care settings. Topics include structuring policy problems, gathering data for policy analysis, monitoring and evaluating policy performance, and communicating the results of policy analysis. The course is intended for students enrolled in the MPH program and students from other graduate degree programs who have an interest in analyzing and evaluating health policies.

**Prerequisites:** HPRO 805/CPH 505 Applied Research in Public Health and HSRA874/CPH 566 Health Policy.

**HSRA 870/CPH 575 Principles of Public Health Informatics (3 credits)**

The purpose of the course is to prepare graduate students, professional students or fellows with an opportunity to gain an in-depth understanding of the various concepts of public health informatics. The course is designed to help students increase their understanding about the concepts and relationships between data, information, and knowledge in context to public health informatics, data standards and how informatics can be used as a new means of data collection and increasing data accessibility. Further the course provides an opportunity for students to get prepared for applying informatics interventions and associated evaluation approaches to improve population health outcomes at both national and global levels.

**Prerequisites:** None

**HSRA 872/CPH 565 Health Care Finance (3 credits)**

This course is the required health care financial management course for the Health Care concentration in the MPA program and a required course in the MPH curriculum. Students are not expected to have prior coursework in financial management, managerial and financial accounting. The course does, however, assume the students have some experience with spreadsheet models. This course, which focuses on the application of financial management principles and concepts to health care organizations, consists of (1) instructor lectures, (2) case analyses, (3) presentations, and (4) two examinations. Much of the learning in this course will come from your own individual work and from interacting with other students, so the benefits that you receive will be directly related to your individual efforts.

**Prerequisites:** Research methods, epidemiology, or biostatistics, or instructor permission.

**HSRA 873/CPH 502 Health Services Administration (3 credits)**

This is a survey course designed to be an introduction to the management of health services organizations and systems in the United States. Specifically, this course will introduce students to the types of health services organizations and health systems in the United States, the context surrounding the administration of these organizations and delivery of health care services, and the skills needed to manage a health services organization within this setting.

**Prerequisites:** None.

**HSRA 874/CPH 566 Health Policy (3 credits)**

This course covers the fundamental issues of the health policy process by emphasizing the historical, social, economic, and political environment of contemporary US public health and health care policies. Students are expected to become knowledgeable about policy formation, implementation, modification and evaluation within public health and health care systems. The course is intended for students who are enrolled in the MPH program and students in other graduate degree programs who have an interest in health policy.

**Prerequisites:** None

**HSRA 896/CPH 587 Research Other Than Thesis (Variable)**

This course is for more advanced students who wish to pursue their research interests in selected areas of Medical Humanities.

**HSRA 898/CPH 589 Special Topics for Masters Students (1-4 credits)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**HSRA 920 Quantitative Methods in Health Services Research (3 credits)**

This course is designed to equip students with an in-depth understanding of the theoretical basis and applications of some more advanced quantitative methods to conduct independent health services research. The course will systematically examine quantitative methods for observational data in general but will emphasize the application of these quantitative methods to answer causal questions. Upon completion of this course, the students are expected to know how to identify and perform quantitative analysis appropriate to answer the research questions and how to critically review literature in health services research. This course will start with an overview of the complexity of the health services research data and a systematic discussion of appropriate quantitative methods to analyze complex survey data, including the limitations of these quantitative methods in generating answers to policy and research questions.

Subsequently, an in-depth discussion of the theories and applications of selected quantitative methods in health services research will be extended. The selected quantitative methods will focus on, but not be limited to, those used to establish causal relationship from observational data, such as two stage least square model using instrumental variable, fixed and random effects model, factor analysis, and methods for economic evaluation of health. For each method, theories and quantitative analysis will be taught first and empirical studies from health services research literature will then be used to illustrate its applications in health services research. The course is intended for doctoral students and health professionals who will be conducting independent quantitative studies in health services research.

**Prerequisites:** BIOS 806/CPH 506 or an equivalent statistics course; BIOS 808/CPH 650 or an equivalent statistics course.

**HSRA 930 Design of Health Services Research (3 credits)**

The course is a required doctoral seminar course for the PhD program in Health Services Research, Administration, and Policy. The course is also expected to be useful for health professionals who seek an understanding of the foundations of health services research design and methods and to PhD students in the colleges of nursing and medicine (MD/PhD program).

**Prerequisites:** BIOS 808/CPH 650; Instructor permission required.

**HSRA 940 Integrated Seminar in Economics and Health Services Research (3 credits)**

This doctoral seminar course emphasizes the application of economics to the study of health services and health policy. Students in this course will discuss and examine the economic theories, empirical research issues, and policy topics related to demand-side aspects (demand for health and health care, health production, health care utilization, health insurance), supply-side aspects (payment policies, health care provider behaviors, cost and efficiency of health care organizations), market competition, quality of health care, and government's role in health care. In addition to requiring students to study the traditional economic theories and models and their application to health care, this course will also facilitate students' critical thinking about the potential problems and limitations of traditional economic models in the study of health and health care. This course is a doctoral seminar course for the PhD program in Health Services Research, Administration, and Policy. Students in this PhD program can select this course as one

of the five courses for their area of emphasis in order to meet the degree requirement. This course is also expected to be useful for health professionals or students of other PhD programs on campus who seek an in-depth understanding of the application of economics to health services research and policy analysis.

**Prerequisites:** HSRA 860/ECON 8600/CPH 564; Instructor permission required.

### **HSRA 950 Medical Geography and Spatial Methods in Health Services (3 credits)**

Medical geography is generally defined under two major themes: the geography of disease and the geography of health disparities. This course focuses on the latter. The purpose of the course is to equip graduate students in health services research and administration with knowledge and skills to conduct geospatial health disparity research and to frame issues from medical geography to subject domains of other fields. The course illustrates how an understanding of population health must take into account the physical and social environment within which people live. The course is suited for PhD students in health services research, but highly motivated master's-level students in public health and related fields are also permitted. This graduate seminar has three sections. The first section critically discusses theoretical aspects of medical geography, which seeks to take into account place, structure and agency. It elucidates the mechanisms underlying geographic health disparities, and examines how residents cope and interact with location deficits. The second section critiques spatial analysis methods for measuring geographic health disparities. It seeks to identify effective approaches of isolating the role of geographic environment as a moderator, contextual factor, or determinant. The third section applies modules in geographic information systems that combine spatial data of health and health care with spatial analytical methods. A selection of topics which are of current interest to health services researchers will be used to elucidate the complexity between place and health. This course is a doctoral seminar course for the PhD program in Health Services Research, Administration, and Policy. Students in this PhD program can select this course as one of the five courses for their area of emphasis in order to meet the degree requirement.

**Prerequisites:** BIOS 808/CPH 650 or EQUIVALENT; An introductory course in GIS or 1 credit hour short course on GIS for public health to be approved by the instructor. Permission of the instructor.

### **HSRA 960 Seminar in Health Care Administration (3 credits)**

This course will provide graduate students with in-depth study of organizational theory and behavior in health care organizations. It will prepare students to articulate, analyze and interpret health care organizations and the theories that underlie their structure and development. It focuses on historical, current and future perspectives of organizational theory and behavior and their role in the successful delivery of health care.

**Prerequisites:** PA8090 Organizational Theory and Behavior, graduate status, and permission of the instructor

### **HSRA 970 Seminar (1 credit)**

**Prerequisites:** Permission of instructor

**HSRA 980 Seminar in Health Policy (3 credits)**

The course is an in-depth examination of the formation and implementation of health policy in the United States, including comparisons to policy formation and implementation in other developed nations. This course includes both seminar sessions and independent research activities. Graduate students will complete research projects analyzing a particular policy or implementation question.

**Prerequisite:** HSRA 874 Health Policy or equivalent and permission of the instructor

**HSRA 996 Directed Readings and Research (credits 1-9)**

Independent Study

**Prerequisites:** Doctoral student status or program permission

**HSRA 998 Special Topics for Doctoral Students (1-4 credits)**

Independent study course focusing on selected topics or problems. The subject will be dependent on student demand and availability of staff.

**HSRA 999 Dissertation Research (1-15 credits)**

The dissertation research is the culmination of the doctoral training in health services research, administration and policy, and is designed to prepare students to conduct independent research.

**Prerequisites:** Instructor Permission

**CAPSTONE COURSES**

A community-based experience, designed to provide students with firsthand, scholarly, supervised experience in a practice setting. This experience augments the academic course work, meets actual community needs, and provides students with an opportunity to integrate and apply/test knowledge, principles and skills acquired through classroom instruction. Students will demonstrate mastery of public health principles, values and practice.

**Prerequisites** CPH 505 Applied Research in Public Health, CPH 517 Design of Medical Health Studies. Students must complete all core and concentration area courses, be within 12 hours of graduation (including the 6 hours of service learning/capstone experience), and be in good academic standing to start the Service-Learning/Capstone Experience (SL/CE).

**Registers for:**

CPH 528 Service learning for MPH Students (3 credit hours)

CPH 529 MPH Capstone Experience (3 credit hours)



