College of Public Health Student Handbook 2011-2012

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College of Public Health
General Information Section

UNIVERSITY GOVERNANCE

Board of Regents

	TERM EXPIRES
Timothy F. Clare Lincoln	January 2015
Jim McClurg, Ph.D. Lincoln	January 2013
Chuck Hassebrook Lyons	January 2013
Bob Whitehouse Papillion	January 2013
Howard Hawks Omaha	January 2015
Kent Schroeder, J.D. Kearney	January 2017
Randolph Ferlic, M.D. Omaha	January 2013
Bob Phares North Platte	January 2017
Jeremy Peterson UNMC	December 2011
Lane Carr UNL	March 2012
Elizabeth O'Connor UNO	March 2012
Jordan Gonzales UNK	March 2012

University of Nebraska Central Administration

James B. Milliken President
Linda R. Pratt Executive Vice President and Provost
David E. Lechner Vice President for Business and Finance
Joel D. Pedersen Vice President and General Counsel
Harvey S. Perlman Vice President and Chancellor of UNL
Ronnie D. Green Vice President and Vice Chancellor of IANR
John E. Christensen Vice President and Chancellor of UNO
Harold M. Maurer Vice President and Chancellor of UNMC
Douglas A. Kristensen Vice President and Chancellor of UNK

University of Nebraska Medical Center Administration

Chancellor	Harold M. Maurer, M.D.
Vice Chancellor for Research	Jennifer Larsen, M.D.
Vice Chancellor for Academic Affairs Interim :	David Crouse, Ph.D.
Vice Chancellor for External Affairs	Robert D. Bartee, M.A.
Vice Chancellor for Business and Finance	Donald S. Leuenberger, M.A.

UNMC Administrative Unit

David Crouse, PhD,Interim Dean for Graduate Studies
J. Michael Leibowitz, PhD, Director, Munroe-Meyer Institute
Kenneth H. Cowan, MD, PhD, Director Eppley Institute for Research in Cancer and Allied Diseases and Director, UNMC/Eppley Cancer Center
Kyle Meyer, PhD, Associate Dean, School of Allied Health Professions
Yvette A. Holly, Assistant Vice Chancellor for Information Technology Services
Ayman El-Mohandes, MBBCh, MD, MPH, Dean, College of Public Health
John W. Reinhardt, DDS, Dean, College of Dentistry
Bradley Britigan, MD, Dean, College of Medicine

Juliann Sebastian, PhD, Dean, College of Nursing
Courtney V. Fletcher, PharmD, Dean, College of Pharmacy

Academic Resource Units
Cheryl Thompson, Interim Associate Vice Chancellor for Academic Affairs
David S. Carver, PhD, Director, Student Counseling Center
Bill O'Neill, Interim Director, Office of Public Affairs
Mary J. McNamee, PhD, Director, Student Equity and Multicultural Affairs and Associate Director, Student Recruitment
Judith Walker, Executive Director, Student Administrative Services and Director, Financial Aid
Lois Colburn, Executive Director, Center for Continuing Education
Nancy Woelfl, PhD, Director, Leon S. McGoogan Library of Medicine

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

	Location	Phone
Ayman El-Mohandes, MBBCh, MD, MPH – Dean	MCPH 2nd Floor	559-4960
Alice Schumaker, PhD – Associate Dean for Academic Affairs	MCPH 2nd Floor	552-6583
James Anderson, PhD – Associate Dean for Research	MCPH 2nd Floor	559-6226
Magda Peck, ScD – Associate Dean for Community Engagement and Public Health Practice	MCPH 2nd Floor	559-5266
Leslie Elliott, PhD – Acting Assistant Dean for Student Affairs	MCPH 2nd Floor	559-7723
Preethy Nayar PhD– Director, Doctoral Programs	MCPH 1st Floor	559-1981
Shawn Gibbs, PhD – Director, Master's Programs	MCPH 3rd Floor	559-4789
Ruth Margalit, MD – Director, Service Learning Academy	MCPH 2nd Floor	559-7458
Sergio Costa, PhD – Director, Distance Learning by Remote Communication and Scholarship	MCPH 2nd Floor	559-1061
Jessica Tschirren, MPA – Director, Office of Educational Services	MCPH 2nd Floor	552-9870
Amy Holtmeier – Coordinator, Office of Educational Services	MCPH 2nd Floor	552-9869
Tiffany Brunt – Admissions and Recruitment Specialist	MCPH 2nd Floor	552-9867
Aleta Gaertner, MPH – Administrative Program Coordinator	MCPH 2nd Floor	559-4960
Laura Bashus – Administrator, Finance and Human Resources	MCPH 2nd Floor	559-4473

Department	Department Chair	Location	Phone
Biostatistics	Jane Meza, PhD	MCPH 3rd Floor	559-4112
Epidemiology	Dana Loomis, PhD	MCPH 3rd Floor	559-4248
Environmental, Agricultural and Occupational Health Sciences	Eleanor Rogan, PhD	MCPH 3rd Floor	559-8924
Health Promotion, Social and Behavioral Health Sciences	Terry Huang, PhD	MCPH 2nd Floor	559-4325
Health Services Research and Administration	Li-Wu Chen, PhD	MCPH 1st Floor	559-5260

Graduate Programs	Graduate Program Chair	Location	Phone
Biostatistics	Gleb Haynatzki, PhD	MCPH 3rd Floor	559-4112
Environmental Health, Occupational Health, and Toxicology	Nick Stergiou, PhD	HPER (UNO)	559-8924
Epidemiology	Lina Lander, ScD	MCPH 3rd Floor	559-9402
Health Services Research, Administration and Policy	Preethy Nayar, MD PhD	MCPH 1st Floor	559-1981
Health Promotion and Disease Prevention Research	Mohammad Siahpush, PhD	MCPH 2nd Floor	559-3437

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 Statement

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.

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 lifelong 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 COPH student body is represented on three COPH Governing Faculty standing committees: the Curriculum Committee, the Research and Development Committee and the Student Recruitment and Admissions 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 Assistant Dean for 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 COPH student body participates in student governance in the UNMC Student Senate and the College of Public Health Student Association.

The COPH student body has appointed advisory members on the following COPH non-standing committees: the Doctoral Programs Committee, the Evaluation Committee, and the Community Engagement Coordinating Council.

COPH 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 masters 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

Voting Members	**Representation**
Virginia Aita	Health Promotion, Social and Behavioral Health
Shawn Gibbs	Chair
Dana Loomis	Epidemiology
Molly McInturf	MPH Student
Elli Rogan	Environmental, Agricultural and Occupational Health
Kendra Schmid	Biostatistics
Raees A. Shaikh	PhD Student
Hongmei Wang	Health Services Research and Administration
Nonvoting Members	**Representation**
Leslie Elliott	Assistant Dean for Student Affairs
Aleta Gaertner	Administrative Program Coordinator
Amy Holtmeier	Coordinator, Office of Educational Services
Alice Schumaker	Associate Dean for Academic Affairs
Jessica Tschirren	Director, Office of Educational Services

Student Recruitment and Admissions Committee - meets monthly

The Committee's charge states it will:

- Recommend to the Governing Faculty policies, and procedures regarding admissions standards for public health student applicants.
- Assist in selecting the entering class, in consultation with program representatives.
- Develop and evaluate initiatives to enhance student recruitment in the College of Public Health for master's and doctoral level training.
- Work in collaboration with the Assistant Dean for Student Affairs and the Office of Educational Services to implement the above.

Current Committee Membership

Voting Members	**Representation**
Christopher Fisher,	Chair and Health Promotion, Social, and Behavioral Health Sciences
Gleb Haynatzki	Biostatistics
Monirul Islam	Epidemiology
Leah Frerichs	PhD Student
Aditi Acharya	MPH Student
Ashish Joshi	Health Services Research and Administration
Sandra Wells	Environmental, Agricultural and Occupational Health
Nonvoting Members	**Representation**
Alice Schumaker	Associate Dean for Academic Affairs
Leslie Elliott	Assistant Dean for Student Affairs

Aleta Gaertner	Administrative Program Coordinator
Jessica Tschirren	Director, Office of Educational Services
Tiffany Brunt	Admission and Recruitment Specialist
Shawn Gibbs	Master's Program Director

Research and Development Committee

The Committee's charge includes:

- Assist the Dean and the Associate Dean for Research in developing a strategic plan to promote the growth and productivity of research in the College of Public Health.
- Assist the Dean and the Associate Dean for Research in special initiatives to develop new College of Public Health research and development programs, including joint programs with other colleges of the University of Nebraska.
- Monitor the initiatives within the College of Public Health to recruit and support student participation in ongoing research activities.

Current Committee Current Membership

Voting Members	**Representation**
Ge Lin	Health Services Research and Administration
Jane Meza	Biostatistics
Shireen Rajaram	Health Promotion, Social and Behavioral Health
Risto Rautiainen	Environmental, Agricultural, and Occupational Health
Melissa Tibbits	Health Promotion, Social and Behavioral Health
Shinobu Watanabe-Galloway	Chair and Epidemiology
Justin Rousek	MPH Student Representative
Maha Farid	PhD Student Representative
Nonvoting Members	**Representation**
James Anderson	Associate Dean for Research

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 COPH students to the college leadership and external entities; advance the academic and social needs of COPH 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

Anh Nguyen, President
Janelle Jacobson, Vice President
Leah Frerichs, Secretary
Andrea Haugen, Treasurer
Kathryn Istas, Student Senate Representative

Medical Center Student Senate (MCSS)

Student Senate Representative
Kathryn Istas

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 COPH students who are currently enrolled and to new applicants.

- Carruth J. Wagner Foundation offers $1,000 scholarships, annually, to UNMC MPH Students. For more information, contact the Assistant Dean for Student Affairs. The number of scholarships may vary from year to year.

- The Robert D. Sparks Student Research Award is a $1,500 award offered annually to MPH and College of Public Health M.S. and PhD students to support outstanding research that impacts public health in the state of Nebraska. For more information, contact the Assistant Dean for Student Affairs.

- The College of Public Health has a limited number of Non-Resident Tuition Scholarships to award to students who are not residents of Nebraska. These scholarships are awarded competitively on the basis of scholarship and academic performance. Please contact the Office of Educations services for more information.

- The Public Health Association of Nebraska offers scholarships annually for Nebraska residents pursuing post secondary education in public health. For more information, see the association's website: http://www.publichealthne.org/.

- 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 COPH strives, as part of its mission, to provide education to the public health workforce of Nebraska and the surrounding region. Additionally, the College recognizes that offering distance education is important in order to make its programs more accessible to students in more remote areas.

While the COPH does not have a distance education program separate from its regular curriculum, it does offer:

Certificate of Public Health Courses and MPH Core Courses – The core courses of the MPH program are offered in synchronous (live class time) delivery via either live video-streaming, IP Video (two-way), or both.

MPH Concentration Courses – MPH concentration courses may be offered via distance depending upon concentration. The Community Health Education, Epidemiology, and Biostatistics concentration courses of the MPH program are offered via either live video-streaming, IP Video, or both.

Doctoral Courses – Students should consult their individual departments.

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

Distance Delivery Modalities

1. IP (Internet Protocol) Videoconferencing
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
Audio and video is streamed live in real time to students anywhere who have a broadband Internet connection and a computer system with Internet Explorer, Windows Media Player, Real Player, or QuickTime installed. Students receive access to the video stream and will hear and see the class just like being there in person. The video and audio are both one-way. Interaction between the instructor and students occurs by telephone connection via a phone bridge or by web conferencing. The live video stream ends when the class concludes and is not saved.

3. Archived Video Streaming and Echo360

The class is digitally recorded for retrieval at a later time. Classroom sessions are archived 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 streams saved on ITS Video Service's server can be accessed through the Codian VCR immediately following the conclusion of the class or event via a web browser. Students who want to access archived streams need to have a high-speed Internet connection, Internet Explorer, and either Windows Media Player or QuickTime. The video stream will be one-way. (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. Students can easily navigate the recordings of the class using thumbnails of particular points in the lecture. It is important to note that in most courses the archived video stream is meant to enhance the student's class time and for the student to use for review. 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, virtual chat, online quizzes, an academic resource center, and more. The degree to which Blackboard is used in a course varies. For example, instructors may supplement an on-campus class by putting their syllabus and handouts on their course sites. In contrast, other courses may be conducted entirely through Blackboard, without any on-campus sessions.

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.

	CPH	COPH COURSE OFFERINGS BY DEPARTMENT	
Grad. Course #	Course #	Course Title	Credit Hr
BIOS			
BIOS 806	CPH 506	Biostatistics I	3
BIOS 808	CPH 650	Biostatistics II	3
BIOS 810	CPH 651	Introduction to SAS Programming	2
BIOS 816	CPH 516	Biostatistical Methods I	3
BIOS 818	CPH 652	Biostatistical Methods II	3
BIOS 823	CPH 653	Catagorical 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 918		Biostatistical Linear Models: Theory and Applications	3
BIOS 924		Biostatistical Theory and Models for Survival Data	3
BIOS 925		Theory of Generalized Linear and Mixed Models in Biostatistics	3
BIOS 970		Seminar	1
BIOS 998	CPH 679	Special Topics	Variable
BIOS 999		Biostatistics PhD Dissertation Research	Variable
	CPH 528	Service Learning for MPH Students	3
	CPH 529	MPH Capstone Experience	3
ENV			
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 899		Master's Thesis	Variable
ENV 902	CPH 619	Special Topics	Variable
ENV 920		Xenobiotics in the Environment (UNL Campus)	3
ENV 950	CPH 602	Advanced Toxicology	3
ENV 970		Seminar	1
ENV 999		Doctoral Dissertation	Variable
	CPH 528	Service Learning for MPH Students	3
	CPH 529	MPH Capstone Experience	3
EPI	**CPH**	**Title**	**Crd Hr**
EPI 811	CPH 631	Emergency Preparedness: Protection	3
EPI 812	CPH 620	Chronic Disease Prevention & Control: Research Concepts & Methodology	3
EPI 820	CPH 504	Introduction to Epidemiology	3
EPI 821	CPH 621	Epidemiology: Advanced Research & Methods	3

EPI 822	CPH 622	Epidemiology of Biosecurity / Biopreparedness and Emerging Infectious Diseases	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	Principles of Epidemiologic Research	3
EPI 896	CPH 647	Research Other Than Thesis	Variable
EPI 900		Epidemiologic analysis of binary and time-to-event-data	3
EPI 905		Epidemiological Research Development	3
EPI 970	CPH 648	Epidemiology Doctoral/Departmental Seminar	3
EPI 998	CPH 649	Special Topics	Variable
EPI 999		Epidemiology Dissertation Research	Variable
	CPH 528	Service Learning for MPH Students	3
	CPH 529	MPH Capstone Experience	3
HPRO			
HPRO 802	CPH 530	Cultural Competence and Professionalism	3
HPRO 803/HPER 8030	CPH 531	Research Methods in HPER	3
HPRO 805/HED 8050	CPH 505	Applied Research in Public Health	3
HPRO 807	CPH 540	Introduction to Community Based Participatory Research	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/HED 8270	CPH 534	Interventions in Health Education	3
HPRO 830	CPH 500	Foundations of Public Health	3
HPRO 831	CPH 535	Physical Activity Epidemiology	3
HPRO 840/HED 8400	CPH 536	Health Promotion Program Planning	3
HPRO 841	CPH 541	Introduction to Social Marketing and Health Communication	3
HPRO 860/HED 8600	CPH 501	Health Behavior	3
HPRO 869/HED 8250	CPH 537	Sexual Health: Ontology, Research, and Education	3
HPRO 875/HED 8750	CPH 538	Health Education: Instrumentation & 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/HED 8950	CPH 539	Public Health Leadership and Advocacy	3
HPRO 896	CPH 557	Research Other Than Thesis	Variable
HPRO 910		Humanistic Traditions of Qualitative Research	3
HPRO 935		Ethics of Human Subjects Research	3
HPRO 970		Seminar	1
HPRO 998	CPH 559	Special Topics	Variable
HPRO 999		Doctoral Dissertation	Variable
	CPH 528	Service Learning for MPH Students	3
	CPH 529	MPH Capstone Experience	3

HRSA			
HSRA 810/PA 8760	CPH 560	U.S. Health Care Systems: An Overview	3
HSRA 820	CPH 507	Global Applications in Public Health	3
HSRA 840/PA 8400	CPH 561	Public Budgeting	3
HSRA 841/PA 8410	CPH 562	Public Human Resource Management	3
HSRA 853/PA 8530	CPH 563	Strategic Planning and Management in the Public Sector	3
HSRA 860	CPH 564	Health Economics	3
HSRA 872/PA 8720	CPH 565	Health Care Finance	3
HSRA 873/PA8730	CPH 502	Health Services Administration	3
HSRA 874/PA 8740	CPH 566	Health Care Policy	3
HSRA 896	CPH 587	Research Other Than Thesis	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	CPH 589	Special Topics	Variable
HSRA 999		Doctoral Dissertation	Variable
	CPH 528	Service Learning for MPH Students	3
	CPH 529	MPH Capstone Experience	3

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 of Public Health 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 (MPH) Certificate Programs

MS/PhD Reference the Graduate Section p. 75

COPH ACADEMIC CALENDAR

Academic Calendar 2011-2012

Fall 2011 Semester

Fall Registration Begins	May 1
Orientation for New Students	August 17,18 &19
1st Day of Classes	August 22
Last Day to ADD Classes	August 29
Last Day to DROP with 100% Refund	August 29
Last Day to DROP Classes	October 14
Service Learning/Capstone Experience Student Orientation	September 16
Deadline for filing for December graduation	October 1
Holidays – No Class Labor Day Fall Break Thanksgiving	 September 5 October 24-25 November 24-25
Open House for Prospective Students	November 18
Student Research Day	November 18
Service Learning/Capstone Experience Presentation Day	December 5-6
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 2012 Semester

Spring Registration Begins	November 1
Orientation for New Students	December 9
1st Day of Classes	January 9
Last Day to ADD Classes	January 16
Last Day to DROP with 100% Refund	January 16
Last Day to DROP Classes	March 2
Deadline for filing for May graduation	February 1
Student Portfolios are Due	February 1
Service Learning/Capstone Experience Student Orientation	February 17
Open House for Prospective Students	TBA
Holidays – No Class Martin Luther King Day Spring Break	 January 16 March 18-25
Last Day of Class	May 4
Fall 2012 Registration Begins	May 1
Service Learning/Capstone Experience Presentation Day	April 23-24
Commencement	May 5

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

Summer 2012 Terms

Summer Registration Begins	March 15
Eight Week Session	May 7 – June 29
First Five Week Session	June 4 – July 6
Second Five Week Session	July 9 – August 10
Last Day to ADD Classes	8 week session – May 9 1st 5-week session – June 6 2nd 5-week session – July 11
Last Day to DROP with 100% Refund	8 week session – May 9 1st 5-week session – June 6 2nd 5-week session – July 11
Last Day to DROP Classes	8 week session – May 28 1st 5-week session – June 18 2nd 5-week session – July 23
Deadline for filing for August graduation	June 1
Holidays – No Class Memorial Day Independence Day	 May 28 July 4
Service Learning/Capstone Experience Presentation Day	August 6-7
Commencement (no ceremony)	August 17

** 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 http://net.unmc.edu/care/docs/handbook.pdf for the following services:

- UNMC Alumni Relations
- Bookstore
- Academic Success Programs
- Services for Students with Disabilities
- Center for Healthy Living
- Child Development Center
- Counseling and Student Development
- Rental Property at UNMC
- ID Badges
- Information Technology Services
- Insurance
- International Studies & Programs
- ITS Video Services
- Library
- Lounges
- Notary Public Service
- Ombudsperson for Students
- Parking
- Printing Services
- Public Relations, Department of
- Security
- Student Health Services
- Student Services, Division of
- Academic Records
- Office of Student Equity and Multicultural Affairs
- Student Loan Accounting
- Financial Aid
- Student Financial Services
- Student Organizations for University of Nebraska Medical Center 2010-2011
- Organizations of Interest to Students
- New Organizations

ACADEMIC POLICIES & UNIVERSITY REQUIREMENTS

Please refer to the UNMC Student Handbook http://net.unmc.edu/care/docs/handbook.pdf for the following policies:

- Campus Academic Policies
- The Family Educational Rights and Privacy Act
- Commercial Support for UNMC Students
- Residency Policy
- Social Security & Medicare Tax Exemption Policies for Student Employees
- Standards of Student Academic Performance
- Academic Integrity and Professional Conduct
- Minimum Standards of Academic Integrity
- Cheating
- Academic Misconduct
- University of Nebraska Medical Center Delinquent Tuition/Fees Policy
- Transcripts
- Conduct
- Compliance Training Policy
- Background Check Policy
- Procedural Rules Relating to Student Discipline
- University of Nebraska Student Maternity/Paternity Leave Policy
- Student AIDS and Other Bloodborne Pathogens Policy
- Student Background Checks and Drug Screening
- Substance Abuse or Dependency Standards of Conduct – Alcohol & Drugs
- Tuberculosis Skin Testing and Bloodborne Pathogens Immunization Policy

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.

Information about 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.

During the 2011-2012 academic year, the tuition rates per semester credit hour for COPH courses are:
Nebraska resident: $360.00 per hour
Nonresident: $850.00 per hour

Miscellaneous fees and charges:
Fees that may be applicable to MPH/Cert. PH students include the following:

- COPH Application fee: $75
- UPFF (University Program and Facility Fee) Fund A (semester): $5.00
- UPFF Fund B – Student Health Facility (semester): $62.50
- UPFF Fund B – Facility Maintenance/Service Fee (semester): $52.50
- Student health insurance (basic plan/semester): $566.00

Special service fees:

- Transcript of grades: $5
- Graduation Fee (nonrefundable): $25
- Returned check charge: $35

Late fees:

- Late registration: $10
- Late payment of tuition and/or fees: $20
- Disenrollment fee: $100

Other fees:

- Add/drop course: $10 each form
- Replacement of student identification card: initial $0, replacement $10
- Library fee: $3.00 per credit hour

- Distance education fee: $25

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.

Tuition refund policy
Students who withdraw may receive a refund of a portion of their tuition for the term in which they are registered. (See the UNMC Student Handbook.)

Change of concentration
Process/Procedure

It is the student's responsibility to:

- Contact the Office of Educational Services to declare intention 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.)
- Obtain written approval of the department home of the concentration the student wishes to enter.

Drops/Adds/Withdrawal
Students may drop a course (see below for circumstances where students withdraw from the University) at any time during the first eight weeks of the semester. After the first week, a grade of "W" will appear on the transcript. The approval of the student's advisor, the instructor of the course, and the Associate Dean for Academic Affairs is required. No student may drop a course after the deadline dates unless the student is able to demonstrate that conditions unforeseen at the time of registration, such as illness, will not permit continuance in the course. These unforeseen conditions will *not* include unsatisfactory scholarship.

Students withdrawing from the University are required to initiate their withdrawals in the Office of Educational Services. Grades are assigned by the instructor on the date of withdrawal. A grade of WP is given if the student is considered to be doing passable work; a grade of WF is given if the student is considered to be doing failing work at the time. The withdrawal form must be completed with appropriate signatures to insure appropriate entries for the permanent record.

Full-time status
MPH/Cert. PH 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. The same requirements apply to students holding a graduate assistantship.

Residency requirements
Each term, students are asked to certify their residency as part of the registration procedure. Students who reside in a state other than Nebraska or who have recently moved to Nebraska must apply for resident status. The Office of Academic Records has full information on the requirements for residency and the forms for applying for resident status.

Access to student records
In accordance with federal law as established in 1974 by the Family Educational Rights and Privacy Act, the University of Nebraska Medical Center maintains the confidentiality of student records and allows students to inspect and review information in their educational records at the Medical Center. The UNMC policy statement concerning student records may be found in the current UNMC Student Handbook or in the Office of Academic Records.

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.

Deferral/Delaying enrollment
Students admitted to the MPH or Certificate of Public Health 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 of Public Health 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 of Public Health 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 COPH Office of Educational Services.

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

Reinstatement following disenrollment
Contact the COPH Office of Educational Services.

Withdrawal from university
Contact the COPH 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 Lotus Notes 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
Phone – 402-559-7700
E-mail/Lotus Notes

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 Lotus Notes e-mail account. Lotus Notes can be accessed from off campus using the web-based Lotus Notes, which uses the same login and password.

Grievances
Refer to the UNMC Student Handbook for procedures. **https://net.unmc.edu/care/docs/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.

To receive credit in a course, it is generally expected that students will perform at the level of B (3.00) or above. 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.

Doctoral and MS students please refer to the Graduate Bulletin (**http://www.unmc.edu/gradstudies/105.htm**).

Any MPH student who fails to maintain a grade point average of B (3.00) or above will automatically be on academic probation and may not continue his/her program of study without the permission of his/her academic advisor, the Curriculum Committee, and the 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 or approval to the Curriculum Committee at least two (2) calendar weeks prior to the next scheduled Curriculum Committee meeting (see "Instructions for Developing a Plan of Remediation for Academic Standing," 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. To continue in his/her program, the student must remove the probationary status (i.e., return to an overall 3.00 or above grade point average) within the subsequent twelve (12) months.

Any MPH student failing to receive a minimum acceptable grade in a course for credit may not continue his/her program of study without permission of the Curriculum Committee. The Committee's decision, along with an appropriate explanation and justification, must be filed in the Office of Educational Services.

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 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.
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 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 henceforth 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 COPH Curriculum Committee will serve as the Appeals Committee. For purposes of considering appeal of grades and other course evaluations, the COPH Curriculum Committee will reconstitute itself as a Faculty-Student Appeals Committee. It will be augmented by an additional student to be recommended by the COPH 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 COPH Faculty-Student Appeals Committee. The COPH 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, etc.) should be replaced through ad hoc appointment(s) made by the COPH 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:

A. Initially, an attempt must be made to resolve the matter through discussion with the instructor of the course for which the grade was received.
B. If the matter is not resolved satisfactorily, the appeal is submitted in writing to the chair of the department in which the course was taken.
C. If the matter is not resolved satisfactorily, 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.
D. The Faculty-Student Appeals Committee will be the final authority in resolution of grade appeals, except that either 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

A. MPH and Cert. of Public Health 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 informally.
    2. If the matter is not resolved satisfactorily, the appeal or concern may be submitted in writing to the Program Director. 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 Program Director is denied, within thirty days of receipt of the denial notice a written appeal may be made to the COPH Curriculum Committee. Normally the COPH Curriculum Committee serves as the final appeal committee.

TRANSFER OF CREDIT

All graduate credits to be counted toward the satisfaction of requirements for the MPH and the Certificate of Public Health program—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 Affairs.

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 degree 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. Final approval will be made by the Associate Dean for Academic Affairs. An official transcript must be forwarded to the Office of Educational Services documenting that course(s) were taken for graduate credit. Up to one-third of the course work required for the degree may consist of courses from a previous graduate degree.

Official transcripts of graduate-level work taken elsewhere and course syllabi must be submitted 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.

Grades received in courses for transfer of credit must be evaluated by the Curriculum Committee. 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 Affairs.

The MPH/Cert.PH Program requires that all coursework be complete within 7 calendar years. Transfer credits for courses taken 5 or more years previous to admission will be evaluated by the Curriculum Committee.

It is recommended that students order official transcripts of graduate work taken elsewhere and submit those to the Office of Educational Services for review by graduate faculty upon application to the MPH Program, but certainly no later than one semester before the student intends to graduate.

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. 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 Affairs.

Requests to transfer aged courses will be considered on a case-by-case basis, but generally the MPH Program requires that coursework be completed within 5 calendar years, allowing students to test for graduate credit if a course is aged-out/obsolete. All work accepted for transfer of credit must have been taken within this prescribed time limit.

REGISTRATION

Registering for COPH 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/pre_inter_campus.aspx**.

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

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.

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/Cert. PH 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.

GRADING

MPH/Cert. PH 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 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 before the final oral/written examination for the master's or PhD degree.

LEAVE OF ABSENCE

The granting of the Leave of Absence (LOA) is solely within the discretion of the COPH program officials based upon the merits of the request, evaluated on a case-by-case basis. The student who is considering a request for LOA should discuss this request with the Office of Educational Services and the Financial Aid Office. This request must be made in writing detailing the rationale for the LOA.

A LOA is considered an attendance withdrawal for students receiving federal student financial aid. Students are considered to be not enrolled during the LOA. Student loan lenders are notified of the student's nonenrollment. Repayment of federal student aid may be required before a LOA can be granted. A leave of absence can affect a student's satisfactory academic progress. Student loans are placed in their six-month grace period during the LOA status.

Students receiving federal student grants or loans are required to visit the Financial Aid Office prior to finalizing a leave of absence. The Office of Financial Aid will determine if current federal student aid must be repaid. The student will be required to complete an exit interview. This exit process is not considered to be an exit/withdrawal from the program; it is a federal compliance process for students receiving federal student aid who will not be enrolled for an extended period of time.

GRADUATION

Filing for graduation

UNMC

- Announcements concerning deadlines for applications are posted on the academic calendar and at **https://net.unmc.edu/care**.
- Each student who expects to receive a diploma is required to complete the following steps:
    1. Submit the master's **candidacy form** (*MPH students only*) before the end of the term prior to your intended graduation to the COPH Office of Educational Services.
    2. File the degree application by the deadline date through the UNMC Office of Academic Records on the C.A.R.E, website ($25 filing fee).
    3. **The Completion of Requirements form** is due 4 weeks prior to the graduation date. This must be submitted to the COPH Office of Educational Services.
        - Removal of any grades of Incomplete by stated deadline
- The **Candidacy and Completion of Requirements** forms can be found on the MPH Blackboard site.

Application for the diploma

Each student who expects to receive a diploma must file an application for the diploma through the Office of Academic Records on the C.A.R.E. website and pay a $25 nontransferrable, nonrefundable graduation fee.

Announcements concerning deadlines for applications are posted throughout the campus and published in the internal communications of the Medical Center and on the UNMC student website.

Commencement exercises

Commencement attendance is required, unless explicitly excused by the Dean of the College of Public Health, for those completing degree requirements when a formal commencement is offered – usually in May and December. Those graduating in August have the privilege of participating in the next formal commencement.

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
CPH 500 Foundations of Public Health	*3 cr hrs*
-or-	
CPH 502 Health Services Administration	
CPH 504 Introduction to Epidemiology	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 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:
  - Prior college-level mathematics or statistics courses and grades:
    - The student must have received the equivalent of at least a grade of B in a statistics course or college algebra or a more advanced mathematics course taken within five years of program application.
  - Prior college-level biology course and grades:
    - The student must have received the equivalent of at least a grade of B in a biology 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: 12 Credit hours

CPH 504 Introduction to Epidemiology	3 cr hrs
CPH 506 Biostatistics I	3 cr hrs
CPH 621 Epidemiology Advanced Design and Methods	3 cr hrs
CPH 650 Biostatistics II	3 cr hrs

Elective Courses: 6 credit hours selected from the list below

CPH 622 Epidemiology of Biopreparedness and Emerging Infectious Diseases	3 cr hrs
CPH 623 Infectious Disease Epidemiology	3 cr hrs
CPH 624 Advanced Infectious Disease Epidemiology	3 cr hrs
CPH 631 Emergency Preparedness: Protection	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 Introduction to Epidemiology	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 PREPAREDNESS EDUCATION 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.
- Prerequisites:
  - Prior college-level mathematics or statistics courses and grades:
    - The student must have received the equivalent of at least a grade of B in a statistics course or college algebra or a more advanced mathematics course taken within five years of program application.
  - Prior college-level biology course and grades:
    - The student must have received the equivalent of at least a grade of B in a biology 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 Emergency Preparedness.

Core Courses: 12 credit hours

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

Elective courses: 6 credit hours selected from the list below

CPH500 Foundations of Public Health	3 cr hrs
CPH 504 Introduction to Epidemiology	3 cr hrs
CJUS 8800 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 two 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 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	Introduction to Epidemiology	3 cr hrs
CPH 506	Biostatistics I	3 cr hrs
CPH 500	Foundations in Public Health	3 cr hrs
	- Or -	
CPH 507	Global Applications in Public Health	3 cr hrs

CPH 506/516 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. On May 13, 2004, the program received 5-year national accreditation from the Council on Education for Public Health (CEPH). On July 1, 2009, the program received reaccreditation for the maximum term of 7 years from CEPH.

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 three 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 and college algebra or a more advanced mathematics course taken within five years of program application.

- Environmental and Occupational Health Prerequisites:
  - The student must have received the equivalent of a grade of B or better in the following courseswithin five years of program application: two semesters of biology, two semesters of chemistry, one semester of physics, and one semester of calculus.

- Biostatistics Concentration Prerequisites:
  - The student must have received the equivalent of a grade of B or better in a statistics course taken within five years of program application and the equivalent of at least a grade of B in differential calculus, integral calculus, and linear algebra course taken within 10 years of program application.

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	Introduction to Epidemiology	3 cr hrs
CPH 504	Epidemiology Theory & Applications	3 cr hrs
CPH 505	*Applied Research in Public Health*	*3 cr hrs*
-or-		
CPH 517	*Design of Medical Health Studies*	*3 cr hrs*
CPH 506	*Biostatistics I*	*3 cr hrs*
-or-		
CPH 516	*Biostatistical Methods I (Calculus-based)**	*3 cr hrs*

**Required for Biostatics concentration students*

CPH 506/516 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. Students admitted prior to the fall of 2007 are exempt.

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

CPH 560 U.S. Healthcare Systems fulfills the health administration core requirement for students admitted prior to fall 2009 only.

CPH 506/516 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.

CPH 516: Prerequisites include calculus (covering differential and integral calculus) within the past 5 years resulting in a grade of B or better.

CONCENTRATION AREAS

There are seven 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 Health Education

The Community Health Education 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 Education	3 cr hrs
CPH 536 Health Promotion Program Planning	3 cr hrs
CPH 538 Health Education: Instrumentation and Evaluation	3 cr hrs
CPH 539 Public Health Leadership & Advocacy	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 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

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 620 Chronic Disease Prevention & Control: Research Concepts & Methodology	3 cr hrs
CPH 621 Epidemiology: Advanced Research & Methods	3 cr hrs
CPH 623 Infectious Disease Epidemiology	3 cr hrs
CPH 650 Biostatistics II	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

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.
Within this framework, 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 hrs

Public Health Administration

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 561 Public Budgeting - or- CPH 565 Health Care Finance	3 cr hrs
CPH 562 Public Human Resource Management	3 cr hrs
CPH 563 Strategic Planning and Management in the Public Sector	3 cr hrs
CPH 566 Health Care Policy	3 cr hrs

DUAL DEGREES

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

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 purse separately the program to which they were admitted.

Curriculum

Core Course (39 Credit Hours)	**Credit Hours**
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 8700 Social Work & Addictive Disorders or 8686 Alcohol and Drugs in Society	3
SOWK 8940 Evaluation of Social Programs	3
SOWK 8190 Research and Computer Applications (meets MPH CPH 505 Applied Research in Public Health 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
Concentration Courses (12 Credit Hours)	
SOWK 8510 Supervision & Personnel Administration (meets MPH CPH 562 Public Human Resource Management Requirement)	3
SOWK 8540 Social Welfare Planning (meets MPH CPH 563 Strategic Planning and Management Requirement)	3
CPH 566 Health Care Policy	3

CPH 561 Public Budgeting or CPH 565 Health Care Finance	3
Service Learning/Capstone Experience & Practicum Courses (6 Credit Hours)	
SOWK 8400 Advanced Practicum I	3
(meets CPH 528 Service Learning in MPH requirement)	
SOWK 8410 Advanced Practicum II	3
(meets CPH 529 Capstone in MPH requirement)	
Total Credit Hours	57

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 five 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.

Concentrations:
- Biostatistics
- Environmental and Occupational Health
- Epidemiology
- Community Health Education
- Community Oriented Primary Care
- Maternal and Child Health
- Public Health Administration

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 purse 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 5th 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 MPH credit hours or eight COM credit hours with the SL/CE (Service Learning/Capstone Experience) replacing two traditional fourth year electives (eight weeks).

MPH CORE COMPETENCIES

Upon graduation, a student with an MPH should be able to...

Core Domains
1. Biostatistics
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.
2. Environmental Health Sciences
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.
3. Epidemiology
A. Explain the importance of epidemiology for informing public health issues.
B. Identify key sources of data for epidemiologic purposes.
C. Calculate basic epidemiology measures and draw appropriate inferences from epidemiologic data.
D. Use epidemiological measures to describe a public health problem in terms of magnitude, person, time, and place.
4. Health Policy and Management
A. Identify the main components and issues of the structure, financing, and delivery of health services within health systems in the US.
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.
5. Social and Behavioral Sciences
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.

Upon graduation, a student with an MPH should be able to...

Cross-Cutting Domains
6. Foundations of Public Health
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.
7. Applied Research Skills
A. Identify and apply fundamental research skills in public health.
B. Identify and critically appraise public health research.
C. Prepare grant proposals.
8. Leadership, Advocacy, and Community-Building
A. Identify linkages with key stakeholders.
B. Identify different levels of community engagement and participation.
C. Engage in collaborative problem solving and decision-making.
9. Culture and Diversity
A. Discuss determinants of health disparities.
B. Describe methods and regulations associated with public health practice in relation to diverse populations.
10. Ethics Skills
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.

References:

- Core Competencies for Public Health Professionals A Project of the Council on Linkages Between Academia and Public Health Practice
- http://www.trainingfinder.org/competencies/list_levels.htm
- http://www.nchec.org/aboutnchec/rc.htm#5
- http://www.phls.org/docs/PHLSposter.pdfCore
- ASPH Education Committee Core Competency Development Project (Draft Core Competencies for Health Policy and Management for all MPH Graduates **http://www.asph.org/UserFiles/Main%2022.pdf**

BIOSTATISTICS COMPETENCIES

1. Recognition of Public Health Problems
    A. Recognize the existence of public health problems in collaboration with public health professionals.
    B. Formulate pertinent research questions and hypotheses in statistical terms.

2. Choice of Variables and Study Design
    A. Identify strengths and weaknesses of study designs, including cohort studies, case-control studies, cross-sectional surveys, and experimental or intervention studies, including randomized controlled trials and field (or community) trials.
    B. Distinguish among different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.
    C. Perform a critical review of the literature, including evaluation of study design implications, statistical analysis methods, and interpretation of research findings.
    D. Select and define variables relevant to a specific public health problem according to strengths and limitations in available data, with the view of statistical design and analysis.
    E. Identify sources of bias and confounding factors, and implement statistical design strategies to minimize the effects of bias and confounding in the resulting statistical models.
    F. Design appropriate, scientifically and statistically sound studies, including specification of study aims

3. Perform Statistical Analysis of Data
    A. Apply descriptive techniques commonly used to summarize public health data.
    B. Apply basic concepts of uncertainty, probability, random variation, and commonly used statistical probability distributions to public health data.
    C. Apply common statistical methods for estimation and inference, including univariate and multivariate methods appropriate for continuous, categorical, and time-to-event data.
    D. Utilize a software package for basic informatics techniques and statistical analyses.
    E. Apply preferred methodological alternatives when the assumptions of commonly used statistical methods are not met.
    F. Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question from public health or clinical studies.
    G. Apply basic measures to control or account for confounding factors in the design and analysis of public health studies, including standardization, stratification, matching, and multivariable analysis.

4. Data Sources and Data Management
    A. Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and evaluation.
    B. Identify key sources of data for statistical analysis purposes.
    C. Apply data management strategies to ensure high quality data.

5. Summarization, Interpretation, and Dissemination of Results

A. Evaluate the strengths and limitations of statistical analyses of public health and clinical studies.
B. Identify key findings from the study.
C. Develop written and oral presentations based on statistical findings for both public health professionals and communication with lay audiences.

6. Ethical/Legal Treatment of Human Subjects
    A. Apply principles of good ethical/legal practice as they relate to study design and data collection, dissemination, use, and all aspects of data handling.
    B. Be familiar with the Institutional Review Board (IRB) research requirements and processes.

7. Cultural Competency
    A. Design and conduct research studies in a manner that is respectful to individuals from different cultural and social backgrounds.

BIOSTATISTICS/EPIDEMIOLOGY COMPETENCIES

1. Investigational Design
    A. Define a problem, identify research questions, and identify an appropriate study design and instrumentation to address the problem or question.
    B. Identify a relevant study population and develop a sampling plan that addresses concerns of bias, confounding factors, and variability.
    C. Identify the principles and limitations of public health screening and surveillance programs.
    D. Identify strengths and weaknesses of study designs, including cohort studies, case-control studies, cross-sectional surveys, and experimental or intervention studies, including randomized controlled trials and field or community trials.
    E. Identify principles of the data collection instrument design and testing.

2. Data Sources and Data Management
    A. Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and evaluation.
    B. Identify key sources of data for epidemiologic and statistical analysis purposes.
    C. Describe data management strategies to ensure high quality data.

3. Roles of Biostatistics and Epidemiology
    A. Explain the importance of epidemiology for informing scientific, ethical, economic, and policy discussion of health issues.
    B. Explain the role of epidemiologists in the investigation of disease outbreaks and disease control, as well as the consultative role of epidemiologists in collaborative public health research.
    C. Describe the roles biostatisticians serve in the discipline of public health, including quantitative consultation in collaborative research.

4. Analysis
    A. Describe a public health problem in terms of magnitude, person, time, and place.
    B. Calculate basic epidemiologic measures including prevalence, incidence, and relative or absolute measures of risk, as well as diagnostic test properties including sensitivity, specificity, positive predictive value and negative predictive value, and measures of reliability.
    C. Distinguish among different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.
    D. Apply descriptive techniques commonly used to summarize public health data.
    E. Describe basic concepts of uncertainty, probability, random variation, and commonly used statistical probability distributions.
    F. Apply common statistical methods for estimation and inference, including univariate and multivariate methods appropriate for continuous, categorical, and time-to-event data.
    G. Utilize software packages for data management and statistical and epidemiologic analyses.
    H. Describe preferred methodological alternatives to commonly used statistical methods when assumptions are not met.

I. Apply descriptive and inferential methodologies according to the type of study design for answering a particular research question.
J. Describe basic measures to control or account for confounding factors in the design and analysis of epidemiologic and public health studies, including standardization, stratification, restriction, matching, multivariable analysis, and assessment of internal validity.

5. Interpretation and Dissemination of Results
    A. Evaluate the strengths and limitations of epidemiologic and statistical reports.
    B. Draw appropriate inferences, distinguishing between association and causation, from epidemiologic data.
    C. Interpret results of statistical analyses found in public health studies.
    D. Discuss basic ethical and legal principles pertaining to the collection, maintenance, use, and dissemination of epidemiologic and public health data, including scientific misconduct.
    E. Develop written and oral presentations based on epidemiologic or statistical findings for both public health professionals and communication with lay audiences.
    F. Discuss the dissemination of epidemiologic or public health data analysis findings to inform policy decisions.

COMMUNITY HEALTH EDUCATION COMPETENCIES

1. Needs Assessment
    A. Conduct health-related needs assessment in communities.
    B. Analyze social, cultural, economic, and political factors that influence health.
    C. Assess individual learning styles.
    D. Assess individual literacy.
    E. Assess the learning environment.

2. Planning
    A. Apply principles of community organization in planning programs.
    B. Review philosophical and theory-based foundations in planning health education programs.
    C. Analyze the process for integrating health education as part of a broader health care or education program.
    D. Develop a theory-based framework for health education programs.
    E. Select appropriate theory-based strategies in health program planning.
    F. Plan training and instructional programs for health professionals.
    G. Identify populations for health education programs.
    H. Involve participants in planning health education programs.
    I. Design a marketing plan to promote health education.

3. Implementing
    A. Assess, select, and apply technologies that will contribute to program objectives.
    B. Develop, demonstrate, and model implementation strategies.
    C. Deliver educational programs for health professionals.
    D. Use community organization principles to guide and facilitate community development.
    E. Critically analyze technologies, methods, and media for their acceptability to diverse groups.
    F. Apply theoretical and conceptual models from health education and related disciplines to improve program delivery.

4. Evaluating
    A. Identify existing sources of health-related databases.
    B. Evaluate existing data-gathering instruments and processes.
    C. Select appropriate qualitative and/or quantitative evaluation techniques.
    D. Develop valid and reliable evaluation instruments.
    E. Implement appropriate qualitative and quantitative evaluation techniques.
    F. Apply evaluation technology as appropriate.
    G. Implement strategies to analyze data from evaluation assessments.
    H. Compare evaluation results to other findings.
    I. Make recommendations from evaluation results.
    J. Apply findings to refine and maintain programs.
    K. Use evaluation findings in policy analysis and development.

5. Coordinating

A. Organize and facilitate groups, coalitions, and partnerships.
B. Facilitate collaborative training efforts among health agencies and organizations.

6. Acting as a Resource
   A. Select a data system commensurate with program needs.
   B. Determine relevance of various computerized health information services.
   C. Assist in establishing and monitoring policies for use in data-gathering practices.
   D. Apply networking skills to develop and maintain consultative relationships.
   E. Apply communication theory and principles in the development of health education materials.
   F. Articulate the historical and philosophical bases of health education.

7. Communicating
   A. Analyze social, cultural, demographic, and political factors that influence decision makers.
   B. Predict the future health education needs based upon societal changes.
   C. Respond to challenges to health education programs.
   D. Demonstrate both proficiency and accuracy in oral and written presentations.
   E. Use culturally sensitive communication methods and techniques.

8. Research
   A. Employ electronic technology for retrieving references.
   B. Analyze references to identify those pertinent to selected health education issues or programs.
   C. Select and critique sources of health information.
   D. Evaluate the research design, methodology, and findings from the literature.
   E. Synthesize key information from the literature.
   F. Assess the merits and limitations of quantitative and qualitative research methods.
   G. Apply qualitative and/or quantitative research methods in research designs.
   H. Use appropriate research methods and designs in assessing needs.
   I. Use information derived from research for program planning.
   J. Select implementation strategies based upon research results.
   K. Employ research design, methods, and analysis in program evaluation.
   L. Describe how research results inform health policy development.
   M. Use research results to inform health policy development.
   N. Use protocol for dissemination of research findings.

9. Administering
   A. Prepare proposals to obtain fiscal resources through grants, contracts, and other internal and external sources.
   B. Develop and manage realistic budgets to support program requirements.
   C. Assess and communicate qualifications of personnel needed for programs.
   D. Recruit, employ, and evaluate staff members.
   E. Provide staff development.
   F. Demonstrate leadership in managing human resources.
   G. Apply human resource policies consistent with relevant laws and regulations.
   H. Analyze an organization’s culture in relationship to program goals.
   I. Assess the political climate of an organization, community, state, and nation regarding conditions that advance or inhibit the goals of the program.

J. Conduct long-range and strategic planning.
K. Develop strategies to influence public policy.
L. Apply social marketing principles and techniques to achieve program goals.
M. Employ concepts and theories of public relations and communication to obtain program support.
N. Incorporate demographically and culturally sensitive techniques to promote programs.
O. Use needs assessment information to advocate for health education programs.

10. Advancing
    A. Relate health education issues to larger social issues.
    B. Articulate health education's role in policy formation at various organizational and community levels.
    C. Analyze the role of health education associations in advancing the profession.
    D. Participate in professional organizations.
    E. Develop a personal plan for professional growth.
    F. Analyze the interrelationships among ethics, values, and behavior.
    G. Relate the importance of a code of ethics to professional practice.
    H. Subscribe to a professionally recognized health education code of ethics.

COMMUNITY ORIENTED PRIMARY CARE COMPETENCIES

1. Community Dimension in the Practice of COPC
    A. Understand and explain the ecological model of Community Health
    B. Recognize and explain the principles of community orientation of health services
    C. Identify and analyze the role of the community and community organizations on its own health and on healthcare services
    D. Understand the need for a community definition for the purpose of health care and apply this definition for the characterization of the community and the development of COPC in different contexts, environments, and places
    E. Understand and promote community participation in COPC
    F. Engage with community members and organizations to develop a COPC Program

2. Methodological and Analytical Skills in COPC
    A. Select, define and apply appropriate methods of collection of data to assess health needs of communities and populations as the baseline for COPC intervention programs
    B. Plan and implement the assessment of health conditions and their determinants by using quantitative and qualitative methods
    C. Identify, critically analyze and use secondary sources of information for the purpose of health assessments at community level
    D. Understand, explain, organize and apply the prioritization process of health conditions in the development of COPC
    E. Critically analyze the evidence for effectiveness of intervention programs to apply in COPC services
    F. Recognize the need and use of appropriate methods of surveillance and evaluation of COPC health programs

3. Management and Communication Skills in COPC
    A. Organize and lead a multidisciplinary team for the development of COPC programs
    B. Use available and appropriate methods to communicate the process of COPC to health teams and community members
    C. Understand the role and management in team work development in COPC
    D. Prepare and verbally present a comprehensive proposal to apply COPC in an existing primary care service
    E. Understand the organizational changes needed at clinical level for the development and implementation of the COPC approach

4. Policy Development
    A. Identify and describe the role of primary care as part of the health care system, the public health system and specifically in community health
    B. Understand and explain the development of the COPC approach in the context of primary care within the healthcare system

C. Describe and analyze the policy and organizational factors related to the worldwide application of COPC
D. Critically analyze the application of COPC in the context of different health systems
E. Identify political and policy elements that could challenge the application of COPC in different health systems, and develop alternative solutions for application

5. Values
    A. Understand the scope and implications of equity and social justice in the development of a COPC practice
    B. Recognize and explain the meaning of the on-going active involvement of the community in health care as a democratic expression of the COPC approach
    C. Recognize community involvement in COPC as a step in community development

EPIDEMIOLOGY COMPETENCIES

1. Recognition of Public Health Problems
    A. Recognize the existence of public health problems.
    B. Identify problems with assistance of other public health professionals.
    C. Collaborate in conducting a community health status assessment.
    D. Characterize investigative processes.
    E. Develop hypotheses.

2. Problem Conceptualization and Critical Thinking
    A. Create and develop a conceptual framework for epidemiological research problems.
    B. Apply principles of causal inference to epidemiologic data.
    C. Review epidemiological literature in a defined problem area using advanced bibliographic and informatics resources.
    D. Critique published epidemiological studies, including evaluation of study design implications, statistical analysis methods, and interpretation of research findings and their strengths and weaknesses.

3. Conducting Surveillance Activities
    A. Identify surveillance data needs.
    B. Implement new or revise existing surveillance systems.
    C. Report key findings from the surveillance system.
    D. Support evaluation of surveillance systems.
    E. Collaborate in defining database requirements.
    F. Conduct investigations (outbreaks or other relevant public health problems).
    G. Identify the principles and limitations of public health screening and surveillance programs.

4. Study Design, Data Collection, and Implementation
    A. Apply fundamental epidemiologic study designs, including ecologic, cross-sectional, cohort, and case-control studies, and explain their uses for solving epidemiological problems.
    B. Choose a study design appropriate for a particular epidemiological research question.
    C. Design an appropriate, scientifically sound study, including
        a. Specification of the study aims
        b. Development of the study design
        c. Specification of data collection methods and data management methods, as well as identifying appropriate sources of data
        d. Identify sources of bias and confounding factors and implement strategies to minimize the effects of bias and confounding factors
    D. Identify the principles and limitations of public health screening and surveillance programs.

5. Data Sources and Data Management
    A. Apply basic informatics techniques with vital statistics and public health records in the description of public health characteristics and evaluation.
    B. Identify key sources of data for epidemiologic and statistical analysis purposes.
    C. Describe data management strategies to ensure high quality data.

6. Analysis, Summarization, and Interpretation of Data
    A. Describe a public health problem in terms of magnitude, person, time, and place.
    B. Distinguish among basic measures of association, including rate ratio, risk ratio, incidence density ratio, odds ratio, attributable risk, and population attributable risk.
    C. Identify situations in research studies in which confounding and interaction and effect modification measures may be influential, and apply designs and statistical methods appropriate to the quantitative assessment of confounding and effect modification.
    D. Use appropriate statistical methods for analysis of epidemiological data.
    E. Use standard statistical software packages for epidemiological research.
    F. Calculate and interpret basic population measures of health and disease occurrence, including incidence, prevalence, and survival.
    G. Evaluate diagnostic test properties, including sensitivity, specificity, positive predictive value and negative predictive value, and measures of reliability.
    H. Make appropriate comparisons of disease rates within and between populations.
    I. Plan and conduct data analysis.
    J. Identify key findings from the study.
    K. Draw appropriate inferences, distinguishing between association and causation, from epidemiologic data.

7. Ethical/Legal Treatment of Human Subjects
    A. Follow ethics guidelines and principles when planning studies, conducting research, and collecting, disseminating, and using data.
    B. Be familiar with the Institutional Review Board's research requirements and processes.
    C. Bring potential conflicts of interest to the attention of collaborators.
    D. Be familiar with the Health Insurance Portability and Accountability Act (HIPAA) and applicable state and local privacy laws.
    E. Recognize agency procedures for handling Freedom of Information Act (FOIA) requests.
    F. Identify and communicate potential violations of ethical principles in preparing and submitting publications to the attention of colleagues.
    G. Identify potential ethical problems in research studies and alternative approaches to solving ethical dilemmas.

8. Dissemination of Study Findings
    A. Develop written and oral presentations based on epidemiologic or statistical findings for both public health professionals and communication with lay audiences.
    B. Discuss the dissemination of epidemiologic or public health data analysis findings to inform policy and programming decisions.

9. Monitoring and Evaluation of Programs
    A. Collect relevant data for use in tracking program objectives and outcomes.
    B. Monitor progress toward program objectives and outcomes.
    C. Communicate information about progress toward program objectives and outcomes to program managers.
    D. Prepare reports to supervisors, funding agencies, clinical and public health communities, and the general public.

10. Cultural Competency
    A. Design and conduct surveillance activities and epidemiological research in a manner that is respectful to individuals from different cultural and social backgrounds.
    B. Communicate epidemiological research findings using mechanisms that are tailored to special population groups and vulnerable communities.

11. Evidence-Based Interventions and Control Measures
    A. Identify and develop appropriate and effective evidenced-based interventions and control measures.
    B. Develop an appropriate cultural/social/political framework for recommended interventions.

ENVIRONMENTAL AND OCCUPATIONAL HEALTH COMPETENCIES

1. Describe the direct and indirect human, ecological, and safety effects of major environmental and occupational agents.
2. Describe genetic, physiologic, and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.
3. Describe federal and state regulatory programs, guidelines, and authorities that control environmental health issues.
4. Specify current environmental risk assessment methods.
5. Specify approaches for assessing, preventing, and controlling environmental hazards that pose risks to human health and safety.
6. Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
7. Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity.
8. Develop a testable model of environmental insult.
9. Specify the role of the immune system in population health.
10. Describe how behavior alters human biology.
11. Identify the ethical, social, and legal issues implied by public health biology.
12. Explain the biological and molecular basis of public health.
13. Explain the role of biology in the ecological model of population-based health.
14. Explain how genetics and genomics affect assessment of disease processes and public health policy and practice.
15. Articulate how biological, chemical, and physical agents affect human health.
16. Apply biological principles to development and implementation of disease prevention, control, or management programs.
17. Apply evidence-based biological and molecular concepts to inform public health laws, policies, and regulations.
18. Integrate general biological and molecular concepts into public health.
19. Ethical/Legal Treatment of Human Subjects
    A. Apply principles of good ethical/legal practice as they relate to study design and data collection, dissemination, use, and all aspects of data handling.
    B. Be familiar with the Institutional Review Board (IRB) research requirements and processes.
20. Cultural Competency
    A. Design and conduct research studies in a manner that is respectful to individuals from different cultural and social backgrounds.

MATERNAL AND CHILD HEALTH COMPETENCIES

1. Scientific Basis

   MCH Professionals should have knowledge and understanding of:

   A. The major domestic and international causes of mortality and morbidity within MCH populations including differences between the United States and other developed and less developed countries.
   B. The normal patterns of individual and family growth and development from an intergenerational and lifespan perspective.
   C. The determinants of health and illness, and concomitant theories including biological, behavioral and socio-cultural influences such as racism, sexism, and economic disparity, as well as protective factors.
   D. The characteristics of health care systems, including dimensions of, use of, and access to health care.
   E. The principles and theories of population-based health promotion at the individual, family and community levels.
   F. The theories and principles of community organization, change, and development.
   G. A comprehension of the foundations of scientific inquiry, and the uses and limitations of conceptual frameworks.

   MCH Professionals should be able to demonstrate the following skills:

   H. Describe MCH problems in terms of time, magnitude/severity, scope, dispersion/location, and co-occurrence/co-morbidity.
   I. Identify the scientific underpinnings and determine the validity of evidence for interventions addressing MCH problems.
   J. Apply knowledge of demographic, health, familial, socio-cultural, environmental and community factors to the design of MCH programs and services.
   K. Critically analyze inequities in health status based on race/ethnicity, socioeconomic position, and gender.
   L. Recognize different strengths, needs, values, and practices of diverse cultural, racial, ethnic, and socioeconomic groups and determine how these factors affect health status, health behaviors, and program design.

2. Methodological/Analytical Skills

   MCH Professionals should have knowledge and understanding of:

   A. Research design, sampling, basic descriptive and inferential statistics, and validity/reliability assessment of measures.
   B. Epidemiological concepts and descriptive epidemiology.
   C. The use of data to illuminate ethical, political, scientific, economic, and overall public health issues.
   D. Strengths and limitations of qualitative and quantitative methods.
   E. Data collection strategies and their strengths and limitations, including surveys, focus groups, and record-based information.

F. Principles and key features of community assessment, program design, implementation, and evaluation.

MCH Professionals should be able to demonstrate the following skills:

G. Prepare and interpret data from vital statistics, censuses, surveys, service utilization, and other relevant reports on the health of MCH populations, and have the ability to detect meaningful inferences from data and the translation of data into information.
H. Apply appropriate qualitative methods to understand maternal and child health status.
I. Ability to conceptualize and appropriately use data and statistical/epidemiological methods for problem and asset identification, assessment, program planning, implementation, and evaluation.
J. Formulate hypotheses or research questions, develop and implement a analytic strategy.
K. Evaluate the integrity and comparability of data and identify existing gaps.
L. Extract data from primary and secondary sources; use basic statistical and graphics software, including programs such as EPI-info, SPSS, and SAS for data management, analysis, and the linkage of data sets.

3. Management and Communications Skills

MCH Professionals should have knowledge and understanding of:

A. Organizational and management theories and practices, and their administration in both public and private agencies.
B. The application of inter-organizational theories including contractual agreements and linkages and the use of principles of systems development, management, and analysis.
C. The purpose, rationale, activities, and performance measures for existing major MCH programs.
D. Appropriate use of networking, team building, small group processes, advocacy, negotiation, and conflict resolution skills, and the knowledge of community organization and coalition- building techniques to address maternal and child health issues and problems.
E. Techniques for soliciting and maintaining consumer and other constituency involvement at all levels of an organization.
F. The processes, organization, and administration of quality management techniques in maternal and child health programs and agencies, including an understanding of the appropriate use, analysis, and interpretation of quality improvement data as it applies to employees, clients, and management.

MCH Professionals should be able to demonstrate the following skills:

G. Apply knowledge of management and organizational theories and practices to the development, planning, staffing, administration, and evaluation of public health programs, including the implementation of strategies promoting integrated service systems for MCH populations.
H. Integrate population-based health promotion and disease prevention

strategies within primary care and other service delivery systems.

I. Develop mechanisms to monitor and evaluate programs and service networks for their effectiveness and quality, including the use of performance measures.
J. Develop, justify, and present a budget.
K. Develop the background and significance section of a grant application and/or develop the rationale for a program or intervention, incorporating scientific, methodological, and practice knowledge and skills as appropriate.
L. Effective written and oral communication skills, including accurate and effective preparation and presentation of reports to agency boards, administrative organizations, legislative bodies, consumers, and/or the media using demographic, statistical, programmatic, and scientific information.
M. Use appropriate techniques for development and dissemination of professional development and continuing education programs for MCH professionals.
N. Effectively resolve internal employee and/or organizational conflicts through a knowledge of applicable management techniques.
O. Develop and maintain an affiliation with community/consumer boards, boards of directors, and coalitions.
P. Effective and appropriate use of information technology, including but not limited to computer graphics and other software necessary for efficient program management and communication.
Q. Develop strategies to assure integrated service systems for MCH populations.

4. Policy and Advocacy Skills

MCH Professionals should have knowledge and understanding of:

A. The historical development and scientific basis of MCH public policies and practices in the United States for federal, state, and local agencies and programs serving maternal and child health populations.
B. Significant past and current national legislative mandates relevant to the development and delivery of maternal and child health services.
C. The structure and roles of legislative, judicial, and administrative bodies at the national, state, and local levels.
D. The organization and financing of health services in the United States and the position of MCH within the system.
E. The theories and mechanisms of MCH policy development and implementation within the scope of health and other public policy programs in the United States.
F. The operation of federal entitlement programs in conjunction with private insurers to financially support maternal and child health services.

MCH Professionals should be able to demonstrate the following skills:

G. Identify essential gaps in existing MCH programs and implement appropriate policy and advocacy measures to assure optimal care.
H. Identify public health laws, regulations, and policies related to specific programs.

I. Place a maternal and child health program within the historical and current context of related programs.
J. Collect and summarize data relevant to a particular policy/problem; articulate the health, fiscal, administrative, legal, social, and political implications of each policy option.
K. State the feasibility and expected outcomes of and barriers to achieving each policy option and decide on the appropriate course of action.
L. Write a clear and concise policy statement, position paper, and/or testimony appropriate for a specific audience.
M. Develop a plan to implement a policy, including goals, outcome and process objectives, implementation steps and evaluation plan.
N. Translate policy into organizational plans, structures, and programs.

5. Values and Ethics in MCH Public Health Practice

MCH Professionals should have knowledge and understanding of:

A. The philosophy, values, and social justice concepts associated with public health practices in MCH, and an appreciation that concepts and theories apply to all MCH populations, irrespective of socioeconomic or Title V eligibility status.
B. The principles and issues involved in the ethical and sensitive conduct of practice and research within MCH populations, and in the organization and delivery of public health services within communities and governmental agencies; including the ethical and confidential collection of data and its management, analysis, and dissemination.
C. The philosophical concepts and rationale underlying the delivery of family centered, comprehensive, community-based, and culturally competent MCH and public health services and programs, including recognition of community assets.

MCH Professionals should be able to demonstrate the following skills:

D. Ethical conduct in practice, program management, research, and data collection and storage.
E. Promotion of cultural competence concepts within diverse MCH settings.
F. Ability to build partnerships within MCH communities and constituencies to foster community empowerment, reciprocal learning and involvement in design, implementation, and research aspects of MCH programs and systems.

*Developed by the Association of Teachers of Maternal and Child Health in collaboration with the MCH Council of the Association of Schools of Public Health and endorsed by the Association of Maternal and Child Health Programs (adopted 11/93; revised 6-7-96, 8/99; revisions approved by ATMCH membership 2/01).

PUBLIC HEALTH ADMINISTRATION COMPETENCIES

1. Policy
    A. Articulate historical context and development of health policy.
    B. Understand the context of health policymaking at the federal and state level.
    C. Understand the process of health policymaking at the federal and state level.
    D. Recognize the interactions of health policy with other policy areas at the local, state, and federal level.
    E. Articulate current health policy issues of access, especially to underserved populations.
    F. Recognize the role of risk and health status in setting health policy for underserved populations.
    G. Articulate current health policy issues related to the cost of health services to patient and provider and financing of these costs.
    H. Understand current health policy related to quality of care.
    I. Recognize how health policy affects workforce availability and training.
    J. Identify policy research tools and methods and analytical reasoning used to evaluate health policy.
    K. Recognize ethical implications of health policy implementation.

2. Human Resource Management
    A. Understand evolution and philosophy of human resource management, including important theories and principles.
    B. Understand personal biases and their role in managing others.
    C. Understand current best practices of human resource management and supervision within a health agency in a manner that is responsive to the motivational and growth needs of employees.
    D. Respond to the motivational and growth needs of employees.
    E. Understand how demographical characteristics of population groups affect best practices (i.e., generational, race/ethnicity, religion).
    F. Understand legalities that affect human resource management.
    G. Identify the political, social, and economic issues that impact human resource management.

3. Budgeting and Financial Management
    A. Understand the history and philosophy of budgeting in the public and nonprofit sectors/health care organizations.
    B. Understand the political, economic, and social context of budgeting in the public and nonprofit sectors/health care organizations.
    C. Understand budget preparation in a public/nonprofit/health care organization.
    D. Prepare a budget for a public/nonprofit/health care organization.
    E. Understand mathematical/statistical tools used in budgeting.
    F. Understand implementation of a budget.
    G. Identify effective financial management processes and controls in public/nonprofit/health care organizations.

4. Planning
    A. Understand history and philosophy of strategic planning.
    B. Understand the theory of strategic planning/management within public/nonprofit/health care organizations.
    C. Understand how to organize and manage personnel for strategic planning.
    D. Articulate facilitation techniques used in a planning process.
    E. Understand how to use and present data.
    F. Construct and critique mission, vision, and value statements.
    G. Articulate the process of strategic planning and management within the public/nonprofit/health care sectors.
    H. Understand SWOT analyses and environmental scanning.
    I. Identify strategic issues (internal and external) that influence the access, delivery, and quality of health services.
    J. Understand and be able to write an action (implementation) plan.
    K. Articulate the review/evaluation/feedback loop.

PLAN OF STUDY

Students are required to determine with their academic advisor, a plan of study that meets the requirements of the MPH curriculum. A plan of study worksheet must be completed and signed by both the advisor and student. The advisor and student must both retain a copy of this document. It is students' responsibility to schedule a time with their advisor to complete this task. The concentration-specific worksheets can be found in this document as attachments.

Attachment 1 – Biostatistics
Attachment 2 – Biostatistics/Epidemiology
Attachment 3 – Community Health Education
Attachment 4 – Environmental and Occupational Health
Attachment 5 – Epidemiology
Attachment 6 – Public Health Administration
Attachment 7 - COPC
Attachment 8 - MCH

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. Students complete individual or group projects at sites approved by the College of Public Health Service-Learning Academy Director.

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.
2. Perform activities that demonstrate the development/enhancement/application of core public health competencies in the areas of collecting and analyzing data, cultural competence and community practice/collaboration, as well as appropriate additional MPH Program-identified competency domains, 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. Produce a capstone paper, including a 250-500 word abstract, of the experience that reflects the integration of public health knowledge, principles, and skills and demonstrates mastery of public health principles, values, and practice.
5. Make an oral presentation of the results of the project at the end of the experience. The presentation should address all objectives listed above.
6. Produce a beneficial product for the placement site, 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

Each MPH student is required to develop a portfolio that describes her/his experiences and accomplishments during the course of her/his professional education. The portfolio is intended to be useful and relevant to the student as well as serve as an important means of assessing educational outcomes for students in the MPH Program.

In order to confirm compliance with this requirement, the portfolio is reviewed annually at the end of the fall semester (November–December) between the student and his/her academic advisor, who provides advice to the student regarding contents and format. The portfolio must be submitted to the MPH Program Blackboard site by February 1.

The portfolio belongs to the student. He/she is expected to share the portfolio with his/her academic advisor and the Office of Educational Services but otherwise has the right to decide who else may have access to the portfolio, which must be maintained in electronic format and will include the following items:

Module I: (prepared at time of matriculation to MPH Program)

1) A statement containing:
   a) Explanation for choice of graduate field
   b) Expectations for learning in the field
   c) Anticipated career goals
   Documentation: personal statement submitted upon application to program

2) A statement of what high ethical standards mean to the individual working in the field of public health
   Documentation: Student's signed copy of MPH Program Core Values and Principles of Conduct and Service and the MPH Program's Academic Integrity Policy. These documents are read and signed during new student orientation, indicating students have read/understand/agree to abide by these principles/ethical standards.

Module II: (updated annually at the end of fall semester)

1) A professional resume or curriculum vitae (CV) that is relevant to current or intended positions containing:
   a) Basic information such as name, contact information, educational and paid/community volunteer work history
   b) Relevant honors, awards, licenses, certifications
   c) Relevant presentations, papers, posters
   d) Relevant grant applications submitted and outcomes, if applicable; IRB applications submitted and outcomes, if applicable
   e) Research projects, if applicable
   Documentation: Professional resume/CV submitted upon application to program is updated annually by student and reviewed for constructive comment by academic advisor upon request by student.

2) An annual report to update the resume/CV, including a summary of learning objectives achieved, public health competencies mastered, projects accomplished, etc. (see Module IV for details).

Documentation: Annual report highlighting accomplishments submitted by student for review by academic advisor.

3) A course/grades worksheet updated annually to record progress in the program of study.

Documentation: Course/grades worksheet updated by the Office of Educational Services and submitted to academic advisor following each academic period.

Module III: (updated annually at the end of fall semester)

1) Service-Learning/Capstone Experience (SL/CE) plans and progress report containing:
   a) General project ideas/description, including possible or actual site(s) and preceptor(s)
   b) Possible or actual goals/objectives
   c) Selected public health competencies to be developed
   d) Possible or actual committee members
   e) IRB application, if applicable
   f) Drafts of paper and presentation slides

   Documentation: Preliminary SL/CE Proposal Form submitted to the academic advisor and updated annually. Once student actually begins SL/CE, committee and supervising faculty member reviews/approves proposal. Capstone paper and presentation slides are also included.

2) Other research projects/papers as applicable.

   Documentation: copies of selected projects/papers.

Module IV: (updated annually at the end of fall semester)

Other relevant graduate education activities as applicable for the program:
   a) Mastery of the identified UNMC MPH Program core public health competencies (applied knowledge, skills, attitudes)
   b) Work goals/accomplishments for the year
   c) Written summaries or video clips of class or work projects, activities, selected research papers, or other materials as desired by the student

   Documentation: Matrix of competencies and coursework/other activities completed/updated annually. Annual goals/accomplishments worksheet updated annually.

Module V: (terminal-year students only)

Brief exit narrative by students addressing:
   a) How career goals/employment expectations have changed since admission
   b) What high ethical standards in public health means now compared to at admission
   c) Specific public health skills or concepts you have learned in this program and how you will be able to apply those to your career goals

Documentation: updated personal statement, final annual report.

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.

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 MPH program are assessed from the semester the student initially enrolls in the 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 Environmental Health, Occupational Health and Toxicology

PhD in Environmental Health, Occupational Health and Toxicology

PhD in Health Promotion Disease Prevention Research

PhD in Health Services Research and Administration

MPH & Certificate Students see COPH section page 21

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GRADUATE ACADEMIC CALENDAR

Year 2011-2012

Academic calendars are subject to change without notice.

Fall Semester 2011
Classes begin Monday, August 22
Vacation, Monday, September 5
Fall Break, Monday and Tuesday, October 24-25
Vacation, Thursday, November 24 through Sunday, November 27
Exam week December 14-18
Classes end Friday, December 18

Spring Semester 2012
Classes begin Monday, January 9
Martin Luther King Day, Monday, January 16
Vacation, Sunday, March 18 through Sunday, March 25
Exam week May 1-5
Classes end Friday, May 5

Summer 2012
Eight Week Session — Monday, May7 - through Friday, June 29
First Five Week Session — Monday, June 4 through Friday, July 6
Second Five Week Session — Monday, July 9 through Friday, August 10

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.

MASTER OF SCIENCE

ENVIRONMENTAL HEALTH, OCCUPATIONAL HEALTH, AND TOXICOLOGY

The degree is sponsored by the College of Public Health and administered and conferred through the UNMC Graduate College, which sets the general requirements. The following narrative describes specific requirements and guidelines for the degree as set by the Department of Environmental, Agricultural, and Occupational Health as well as general information from the UNMC Graduate Bulletin. Students should refer to the UNMC Graduate Bulletin for detailed information.

Program Description

This program is for students who are interested in further academic work and/or research. Students may enter this degree program in one of three tracks: Environmental Health, Occupational Health, or Toxicology. This degree 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 will be a focus on the impact of agricultural practices on human and environmental health. In states such as Nebraska, where the economy is primarily based on agriculture, this focus will provide effective training for students interested in agricultural issues.

Program Requirements (see UNMC Graduate Bulletin for more detail http://www.unmc.edu/gradstudies/105.htm)

Residence and Time
Not less than 50 percent of the course work required must be completed on the UNMC campus after the student has been formally admitted and registered in the Graduate College. Appropriate courses may be taken with departments located on other campuses of the University of Nebraska.

The work required for a Master's degree must be completed within five consecutive calendar years.

Graduate Committees
The program 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 new graduate student will be assigned an advisor. The Graduate Committees oversee the work of candidates for the master's degree. The Graduate Committee approves from the Graduate Faculty a three-member Advisory Committee to supervise a master's degree student. At least one member of the Advisory Committee must be a Graduate Faculty Fellow. These Advisory Committees will act on behalf of and report to the program Graduate Committee.

Admission to Candidacy
Admission to the Graduate College does not necessarily imply admission to candidacy. A student may be admitted to candidacy for a master's degree on recommendation of the appropriate Graduate Committee and after approval by the Dean for Graduate Studies. A student must be admitted to candidacy prior to the start of the semester in which the student plans to graduate.

Responsible Conduct in Research
All graduate students are required to attend training on Responsible Conduct in Research, as sponsored by UNMC Graduate Studies.

Program of Study
Master's candidates must complete at least six graduate courses, three of which may be "introductory" courses (800 level, with 600 level or lower counterparts). A master's thesis must be completed in the candidate's research area. Candidates are encouraged to submit data contained in the thesis for publication before completion of the degree requirements.

Regular participation in the seminar program of the major area of study is a requirement for all students. The Graduate Committee or the student's Advisory Committee may also require the student to complete various techniques courses, language courses, research courses, special topics, etc., as necessary, but none of these courses may be used to meet the requirements for the six graduate courses.

The subject of the thesis 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 investigation. The thesis must conform to the style accepted at UNMC. Examples may be viewed at the McGoogan Library of Medicine.

The thesis must be presented in final form to the student's Advisory Committee at least two weeks before the date for the candidate's final oral examination (defense of thesis). A candidate shall not be eligible for the defense until the thesis is completed and approved by the major advisor.

When the thesis defense has been completed successfully, one copy of the thesis must be supplied to the major department and two copies must be deposited in the McGoogan Library of Medicine. To meet requirements for completion of the degree in a given semester, the approved thesis and evidence of the successful defense must be in the Graduate Studies Office one week before the end of the semester.

Examinations
A written and/or oral comprehensive examination is required to cover the student's approved program of study, as specified by the student's Advisory Committee. The comprehensive examination must be taken no sooner than ten months prior to the completion of degree requirements. The Graduate Studies Office must be notified of the date of the comprehensive

examination and the names of the examining committee members not later than two weeks prior to the examination.

The report of the outcome of the examination must be filed on the appropriate form in the Graduate Studies Office within seven days following the examination. The comprehensive examination must be passed at least one week prior to the time the final oral examination is scheduled.

For the defense of thesis (final oral examination), the examining committee, appointed by the Dean for Graduate Studies, is the student's Advisory Committee. One member of the examining committee must be a Fellow of the Graduate Faculty. A report of the outcome of the final oral examination must be filed in the Graduate Studies Office within seven days following the examination.

If more than one member of the examining committee recommends failure in a comprehensive examination or defense of thesis (final oral examination), the student shall be considered to have failed the examination. In the event of failure, the examining committee shall within seven days recommend to the Dean for Graduate Studies whether the student should be given the option of retaking the examination and, if so, the committee shall identify general areas of weakness that require special attention and any remedial actions that the student should complete prior to reexamination.

No student shall be permitted to take either the comprehensive examination or defense of thesis (final oral examination) more than twice, and the student must wait a minimum of three months before retaking the examination. The same committee shall give the reexamination unless the Graduate Committee responsible for the student's program recommends, and the Dean for Graduate Studies approves, a substitution.

Summary of Procedure for the Master's Degree
This summary of procedure should be studied carefully in connection with the Graduate Studies calendar. See the Graduate Bulletin at **http://www.unmc.edu/gradstudies/105.htm** for complete procedural detail and timeline.

Partnerships within the University
Faculty participating in the degree program are drawn from various departments and colleges listed below:

UNMC College/Institute	**School/Department**
College of Public Health	Environmental, Agricultural and Occupational Health Biostatistics
College of Medicine	Biochemistry & Molecular Biology Genetics, Cell Biology and Anatomy Internal Medicine Pathology & Microbiology Pharmacology and Experimental Neurosciences Neurological Sciences

	School of Allied Health Professions
College of Pharmacy	Pharmaceutical Sciences
Eppley Institute for Research in Cancer	

UNL College/Institute	**School/Department**
Arts & Sciences	School of Biological Sciences Chemistry Psychology
Engineering	Civil Engineering Construction Management
Agricultural Sciences & Natural Resources	Entomology Food Science & Technology Agronomy and Horticulture School of Natural Resources
Agricultural Sciences & Natural Resources / Engineering	Biological Systems Engineering

UNO College/Institute	**School/Department**
Arts & Sciences	Biology Chemistry
Education	School of Health, Physical Education and Recreation

Program of Study – M.S. requirements
An MS degree in each of the three tracks is offered. The purpose of this degree is for future academic study and research. All students must take the required courses for their educational track. The total number of credit hours required for the degree is determined by the student's advisory committee. Students must give an oral defense of their thesis research.

Environmental Health Track
An academic degree designed to prepare students for future academic work and research.

Core Courses Required for MS degree:

Health Promotion/Disease Prevention Environmental	HPRO 830 ENV 970	Foundations of Public Health Seminar	3 credit hours/UNMC 1 credit hour/UNMC
Epidemiology	EPI 820	Introduction to Epidemiolgy	3 credit hours/UNMC
Biostatistics	BIOS 806 or BIOS 816 ***or*** STAT 801	Biostatistics I Statistical Methods in Research	3 credit hours/UNMC 4 credit hours/UNL

Research	ENV 899	Master's Thesis	8-12 credit hours/UNMC
Electives		Graduate level 800/900 courses At least 2 courses	3-6 credit hours

Occupational Health Track Courses Required for MS degree:

Health Promotion/Disease Prevention Environmental	HPRO 830 ENV 970	Foundations of Public Health Seminar	3 credit hours/UNMC 1 credit hour/UNMC
Epidemiology	EPI 820	Introduction to Epidemiology	3 credit hours/UNMC
Ergonomics	PE 8400 PE 8410 PE 8450	Motor Learning Motor Control Advanced Biomechanics	3 credit hours/UNO 3 credit hours/UNO 3 credit hours/UNO
Biostatistics	BIOS 806 or BIOS 816 ***or*** STAT 801	Biostatistics I Statistical Methods in Research	3 credit hours/UNMC 4 credit hours/UNL
Research	ENV 899	Master's Thesis	8-12 credit hours/UNMC
Electives		Graduate level 800/900 courses	

Toxicology Track Courses Required for MS degree:

Health Promotion/Disease Prevention Environmental	HPRO 830 ENV 888 ENV 970	Foundations of Public Health Principles of Toxicology Seminar	3 credit hours/UNMC 3 credit hours/UNMC 1 credit hour/UNMC
Epidemiology	EPI 820	Introduction to Epidemiology	3 credit hours/UNMC
Biochemistry	BRTP 821 ***or*** BIOC 831 ***or*** CHEM 8656	Macromolecular Structure & Function Biomolecules & Metabolism Biochemistry I	3 credit hours/UNMC 4 credit hours/UNL 3 credit hours/UNO
Biostatistics	BIOS 806 or BIOS 816 ***or*** STAT 801	Biostatistics I Statistical Methods in Research	3 credit hours/UNMC 4 credit hours/UNL
Research	ENV 899	Master's Thesis	8-12 credit hours/UNMC
Electives		Graduate level 800/900 courses At least 1 course	3-6 credit hours

DOCTOR OF PHILOSOPHY: GENERAL OVERVIEW

PURPOSE AND PROGRAM DESIGN

The Board of Regents approved the UNMC COPH 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**
Environmental Health, Occupational Health, and Toxicology PhD	Environmental, Agricultural, 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 through the college-wide Doctoral Program Committee chaired by the Doctoral Programs Director. The primary purpose of the Doctoral Programs Committee is to elevate the quality of doctoral education through interdepartmental collaboration and coordination. The Committee makes decisions regarding policies and procedures that apply to all PhD programs, and develops and implements interdepartmental educational activities.

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**.

CORE COMPETENCIES FOR PHD

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:

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.

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 MS and PhD degrees 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 biomechanics, ergonomics, 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 Health Track

1. Describe characteristics and trends in US agriculture.
2. Utilize available data on agricultural production and populations.
3. Describe common injury and illness hazards in agriculture.
4. Utilize available data resources on agricultural and environmental injuries and illnesses.
5. Describe common intervention strategies and how they apply to agriculture and the environment.
6. Evaluate agricultural safety programs and their strengths and weaknesses.
7. Discuss future strategies to reduce agricultural injuries.
8. Understand a broad range of environmental science health factors that affect the health of a community, including the biological effects of these exposures.
9. Understand methods of risk assessment and control.
10. Understand how public health policy helps control risk.
11. Understand how effective risk communication strategies and techniques contribute to solutions to environmental health problems.
12. Review current literature and formulate research questions.

Occupational Health and Safety Track

1. Develop basic skills necessary to apply the principles of biomechanical analysis to common work tasks.
2. Apply basic anatomical and mechanical principles to the description and analysis of human movement in common work tasks.
3. Evaluate biomechanical data of an individual and describe the motion of the human body in common work tasks.
4. Understand the systems of instrumentation used in occupational biomechanical research and learn techniques to measure movement and to analyze forces, work, and power in a working environment.
5. Appreciate the need for occupational biomechanics and its limitations in the analysis of standards for manual materials handling.
6. Comprehend the biomechanical principles necessary for understanding current models and guidelines used in occupational ergonomics.
7. Appreciate the need for future research in the development of new models and ergonomic guidelines.
8. Increase ability to better analyze and evaluate performance and make corrections in occupational settings to avoid injury and improve performance.
9. Discuss the origins of motor-control studies.
10. 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.
11. Apply appropriate experimental and clinical tools and procedures to assess motor control.
12. Understand how the nervous system is associated with motor control and its functions.
13. Understand how attentional processes can influence motor performance.

Toxicology Track

1. Recognize a chemically induced toxic response.
2. Utilize dose-response characteristics to associate a toxic response to a specific chemical exposure.
3. Use the principles of absorption and distribution to predict the severity of a toxic response to a particular toxicant.
4. Correlate targeted organ toxicity with a specific toxicant exposure.
5. Understand the use of epidemiological data and risk assessment protocols in the prediction of human toxic responses to environmental and workplace exposures.
6. Describe the process of development of government regulatory policies and their impact on industries and on human health.
7. Critically assess the literature on a specific chemical-induced toxicity and use literature resources to compose a critical assessment of a specific toxic response to a chemical toxicant.
8. Present an assessment of toxicity in both oral and written formats.
9. Propose areas of need in the study of specific toxicant-induced responses.
10. Propose approaches to determine the association and/or correlation of a toxic response to a specific chemical exposure.

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. A GPA minimum 3.0
2. GRE scores: 350 Verbal minimum, 600 Quantitative minimum.

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).

Degree Requirements

Program-at-a-Glance

Courses	Track		
	Environmental Health	**Occupational Health**	**Toxicology**
HPRO 830 Foundations of Public Health	3 credits	3 credits	3 credits
ENV 970 Seminar	1 credit*	1 credit*	1 credit*
EPI 820 Introduction to Epidemiology	3 credits	3 credits	3 credits
EPI 821 Advanced Methods in Epidemiology	3 credits		
BIOS 806 Biostatistics I	3 credits	3 credits	3 credits
BIOS 808 Biostatistics II	3 credits	3 credits	3 credits
PE 8400 Motor Learning		3 credits	
PE 8410 Motor Control		3 credits	
PE 8450 Advanced Biomechanics		3 credits	
ENV 888 Principles of Toxicology			3 credits
ENV 950 Advanced Toxicology			3 credits
BRTP 821 Macromolecular Structure & Function			3 credits
Other Biochemistry Courses			2 – 4 credits
Approved elective courses	3 – 6 credits	3 – 6 credits	3 – 6 credits
Dissertation	10- 16 credits	10 – 16 credits	10- 16 credits
Total	29 -38 credits	32 – 41 credits	34 - 45 credits

In addition, all PhD students are expected to attend the monthly Doctoral Program Seminar throughout their program of study.

**1 credit for each fall and spring semester enrolled.*

Environmental Health Track

Required Core Courses (16 total credits)				
Required Environmental Courses (4 credits)		Credit	Semester Offered	Grading
HPRO 830	Foundations of Public Health	3	Fall/Summer	Grade
ENV 970	Seminar (required each semester)	1	Spring/Fall	Pass/Fail
Required Epidemiology Courses (6 Credits)		Credit	Semester Offered	Grade
EPI 820	Introduction to Epidemiology	3	Fall	Grade
EPI 821	Epidemiology Advanced Design and Methods	3	Spring	Grade
Required Statistics Courses (6-8 Credits)*		Credit	Semester Offered	Grade
BIOS 806	Biostatistics I	3	Fall/Spring	Grade
BIOS 808	Biostatistics II	3	Spring	Grade
Approved Elective Courses (variable number of total credits)				
Must take at least two graduate level 800/900 courses		Variable	Spring/Fall	Grade
Dissertation Research (variable number of total credits)				
ENV 999	Doctoral Dissertation	Variable	Spring/Fall	Pass/Fail

Occupational Health and Safety Track

Required Core Courses (19 total credits)				
Required Environmental Courses (4 credits)		Credit	Semester Offered	Grade
HPRO 830	Foundations of Public Health	3	Fall/Summer	
ENV 970	Seminar (required each semester)	1	Spring/Fall	Pass/Fail
Required Ergonomics Courses (9 credits)		Credit	Semester Offered	Grade
PE 8400	Motor Learning	3/UNO		Grade
PE 8410	Motor Control	3/UNO		Grade
PE 8450	Advanced Biomechanics	3/UNO		Grade
Required Statistics Courses (6-8 Credits)*		Credit	Semester Offered	Grade
BIOS 806	Biostatistics I	3	Fall/Spring	Grade
BIOS 808	Biostatistics II	3	Spring	Grade
Approved Elective Courses (variable number of total credits)				
Must take at least one graduate level 800/900 course		Variable	Spring/Fall	Grade
Dissertation Research (variable number of total credits)				
ENV 999	Doctoral Dissertation	Variable	Spring/Fall	Pass/Fail

Toxicology Track

Required Core Courses (21 total credits)				
Required Environmental Courses (10 Credits)		Credit	Semester Offered	Grading
HPRO 830	Foundations of Public Health	3	Fall/Summer	Grade
ENV 888	Principles of Toxicology	3	Fall	Grade
ENV 950	Advanced Toxicology	3	Spring/odd years	Grade
ENV 970	Seminar (required each semester)	1	Spring/Fall	Pass/Fail
Required Biochemistry Courses** (5-6 credits)		Credit	Semester Offered	Grade
BRTP 821	Macromolecular Structure & Function plus one of the following: BRTP 822 The Cell and Gene Regulation ***or*** BRTP 823 Molecular Cell Biology ***or*** BRTP 824 Cell Signaling (3 credits)	3 2-3	Fall	Grade
Required Statistics Courses (6-8 Credits)*		Credit	Semester Offered	Grade
BIOS 806	Biostatistics I	3	Fall/Spring	Grade
BIOS 808	Biostatistics II	3	Spring	Grade
Approved Elective Courses (variable number of total credits)				
Optional graduate level 800/900 course(s)		Variable	Spring/Fall	Grade
Dissertation Research (variable number of total credits)				
ENV 999	Doctoral Dissertation	Variable	Spring/Fall	Pass/Fail

*__or__ STAT 801 Statistical Methods in Research (4 credits/UNL) and STAT 802 Experimental Design (4 credits/UNL).

**__or__ BIOC 831 Biomolecules & Metabolism (4 credits/UNL) or BIOC 832 Gene Expression and Rep (2 credits/UNL) __or__ CHEM 8656 Biochemistry I (3 credits/UNL) or CHEM 8666 Biochemistry II (3 credits/UNL)

DOCTOR OF PHILOSOPHY
HEALTH PROMOTION AND DISEASE PREVENTION RESEARCH

Program Purpose

The PhD in Health Promotion and Disease Prevention Research is offered through the Department of Health Promotion, Social & Behavioral Health, College of Public Health. The mission of the 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 through critical and integrative thinking 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

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.

Requirements:

1. A GPA of 3.00 for all graduate course work
2. Master's or other advanced degree; exceptional students with a bachelor's degree will also be considered
3. Minimum of 1,000 combined on verbal and quantitative sections of the GRE
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. Three letters of recommendation
    - At least one from a faculty member in the applicant's previous program
    - Remaining two letters from academic and/or professional references

Degree Requirements

Program-at-a-Glance

Required Core Courses (90 total credits)				
Required Health Promotion Core Courses (18 Credits)		Credit	Semester Offered	Grade
HPRO 827	Interventions in Health Education	3	Fall	Yes
HPRO 830	Foundations of Public Health	3	Fall & Summer	Yes
HPRO 840	Health Promotion Program Planning	3	Fall	Yes
HPRO 860	Health Behavior	3	Fall	Yes
HED 8136	Community Health	3	Fall	Yes
HSRA 810	The U.S. Health Care Systems	3	Fall & Spring	Yes
Required Research Courses (23 Credits)		Credit	Semester Offered	Grade
BIOS 806	Biostatistics I	3	Fall & Spring	Yes
BIOS 808	Biostatistics II	3	Spring	Yes
BIOS 810	Introduction to SAS Programming	2	Fall	Yes
EPI 820	Introduction to Epidemiology	3	Fall	Yes
EPI 821	Epidemiology: Advanced Design and Methods	3	Spring	Yes
HPRO 805	Applied Research in Public Health	3	Spring	Yes
HPRO 875	Health Education: Instrumentation and Evaluation	3	Spring	Yes
PA 9960	Qualitative Research Methods	3	Fall	Yes
Required Writing Core Courses (4 Credits)		Credit	Semester Offered	Grade
CIP 814	Scientific Writing	2	Spring	Yes
NRSG 920	Grant Application and Management	2	Spring	Yes
Required Directed Research (6 Credits)		Credit	Semester Offered	Grade
HPRO 998	Special Topics	6		
Required Ethics Course (3 Credits)		Credit	Semester Offered	Grade
HPRO 935	Research Ethics	3		Yes

Approved Elective Courses (21 Credits Minimum)		Credit	Semester Offered	Grade
BIOS 835	Design of Medical Studies	3	Spring	Yes
EDPS 971-UNL	Structural Equation Modeling	3	Spring	Yes
ENV 810	Principles of Occupational & Environmental Health	3	Fall	Yes
EPI 812	Chronic Disease Prevention and Control: Research Concepts & Methodology	3	Spring & Summer	Yes
EPI 825	Infectious Diseases Epidemiology	3	Spring	Yes
HPRO 807	Introduction to Community-Based Participatory Research	3	Fall	Yes
HPRO 869	Sexual Health: Ontology, Research and Education	3	Spring	Yes
HSRA 820	Global Applications in Public Health	3	Fall	Yes
HSRA 920	Quantitative Methods in Health Services Research	3	TBD	Yes
NRSG 910-UNMC	Health-related Instrument Construction & Evaluation	3	Summer	Yes
NRSG 926-UNMC	Use of Technology to Deliver and Monitor Interventions and Outcomes	3	Spring	Yes
PSYCH 944-UNL	Multilevel Models for Longitudinal Data	3	Fall	Yes
PSYCH 945-UNL	Advanced Multilevel Models	3	Spring	Yes
Doctoral Dissertation (9 credits)		Credit	Semester Offered	Grade
HPRO 999-UNMC	Dissertation	9	TBD	P/F

In addition, all PhD students are expected to attend the monthly Doctoral Program Seminar throughout their program of study.

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, College of Public Health.

The objective of the PhD program in Health Services Research, Administration, and Policy is to train students to be excellent scholars and researchers in the field of health services research. The curriculum design of this program is consistent with the core competencies of health services research followed by most major graduate programs of its like in the nation. The UNMC program focuses its training of students on the areas of quality and effectiveness research, health administration, and health policy.

The program will train and provide high quality health services researchers and faculty for the public and private sectors in Nebraska and other states in the region. The UNMC program takes advantage of the extensive research and service activities of College of Public Health research centers. The teaching faculty affiliated with the PhD program, are also active researchers in these centers.

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

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.

Requirements:

1. GPA of 3.0 based on a four-point scale

Application materials must include:

1. Letter of intent that supports the applicant's interest area and goals.
2. Three letters of recommendation.
3. Curriculum vitae or resume.
4. Transcripts from postsecondary education.
5. GRE scores.[1]
6. TOEFL scores.[2]

[1] Under special circumstances, the GRE score may be waived. Such circumstances may include a situation where a prospective student has excellent academic record and a significant period of professional experience prior to the admission. The waiver decision will be made by the Department of Health Services Research and Administration's Graduate Program Committee.

[2] The TOEFL score is required for students whose first language is not English.

Degree Requirements

Program-at-a-Glance

Required Core Courses (90 total credits)				
Required HSRA Core Courses (30 Credits)		**Credit**	**Semester Offered**	**Grade**
HSRA810	US Healthcare System	3	Fall	Grade
HSRA 874	Healthcare Policy	3	Fall	Grade
HSRA 873	Health Services Administration	3	Fall & Spring	Grade
HSRA 860	Health Economics	3	Fall	Grade
PA 8090	Organizational Theory and Behavior	3		Grade
BIOS 806	Biostatistics I	3	Fall & Spring	Grade
BIOS 808	Biostatistics II	3	Spring	Grade
EPI 820	Introduction to Epidemiology	3	Fall	Grade
HPRO 830	Foundations of Public Health	3	Fall & Summer	Grade
HSRA 872	Health Care Finance	3	Spring	Grade
Required PhD Seminar Courses (9 Credits)		**Credit**	**Semester Offered**	**Grade**
HSRA 920	Quantitative Methods in Health Services Research	3	Spring	Grade
HSRA 930	Design of Health Services Research	3	Spring	Grade
PA 9960	Qualitative Research Methods	3	Fall	Grade
PhD Seminar Courses or Courses for Area of Emphasis (select 5 from the following list)		**Credit**	**Semester Offered**	**Grade**
HSRA 940	Integrated Seminar in Economics And Health Services Research	3	TBD	Grade
HSRA 950	Application of Medical Geography to Health Services Research	3	TBD	Grade
HSRA 960	Seminar in Health Care Administration	3	TBD	Grade
HSRA 980	Seminar in Health Policy	3	TBD	Grade
HSRA 896	Research Other Than Thesis	3		Pass/Fail
Outside HSRA	Research Methodology Course[2]	3		Grade
Outside HSRA	Research Methodology Course[2]	3		Grade
Public Admin UNO	Administration/Policy Course[3]	3		Grade
Public Admin at UNO	Administration/Policy Course[3]	3		Grade

In addition, all PhD students are expected to attend the monthly Doctoral Program Seminar throughout their program of study.

Appendix A	**List of Research Methodology Courses (outside HSRA Department) for Area of Emphasis**	**Credit**	**Semester Offered**	**Grade**
EPI 821	Epidemiology: Advanced Research and Methods	3		Grade
BIOS 823	Categorical Data Analysis	3		Grade
BIOS 824	Survival Data Analysis	3		Grade
BIOS 825	Correlated Data Analysis	3		Grade
ECON 8300	Econometrics	3		Grade
Appendix B	**List of Administration/Policy Courses (offered in the School of Public Administration at UNO) for Area of Emphasis**	**Credit**	**Semester Offered**	**Grade**
PA 9600	Seminar in Advanced Management Theory	3		Grade
PA 9700	Public Budgeting and Financial Theory	3		Grade
PA 8320	Public Policy Evaluation	3		Grade
PA 8300	Policy Design and Implementation	3		Grade
PA 8330	Public Policy Analysis	3		Grade

The following policies and procedures have been excerpted from the UNMC Graduate Studies Bulletin for convenience. All M.S. and PhD students should reference the UNMC Graduate Bulletin for further detail.

ADMISSION TO THE GRADUATE COLLEGE

Overview

Applicants must hold the minimum of a baccalaureate degree or equivalent from a recognized college or university. Specific requirements for admission to a graduate program with full graduate standing are listed in the departmental sections. In general, admission to graduate programs requires a minimum GPA of 3.0 based on a four-point scale.

The qualification for admission to and graduation from the various programs of graduate study is dependent upon possession of the following technical standards:

- The intellectual capacity to meet curricular requirements.
- Physical ability to pursue administration, teaching and/or independent research.
- The ability to communicate effectively with mentors, peers and other professionals in the academic community.
- Sufficient emotional stability to permit management of the demands associated with the pursuit of professional activities.

These technical standards are minimum requirements for participation in graduate programs at UNMC which require significant laboratory or research-oriented activities. Individuals wishing to participate in programs with requirements for patient care or patient contact must have technical standards defined individually.

In accordance with University Policy, UNMC prohibits the denial of admission or of Medical Center privileges to students or applicants on the basis of individual characteristics such as race, color, sex, national origin, age, disability, religious or political beliefs or sexual orientation. These privileges include but are not limited to admission, class assignments, scholarships, fellowships, assistantships, and financial aid, as well as housing and recreational facilities. Furthermore, student organizations must base their selection of students for membership on criteria, which will not exclude students based upon individual characteristics such as race, color, religion, sex, national origin, age, disability, or sexual orientation.

In summary, 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 799A and 854 of the Public Health Services Act.

Admission requirements
The Graduate College is open to graduates of all the colleges of this University and to graduates of other universities and colleges of recognized standing whose requirements for graduation are substantially the same as those in the corresponding college of this University. Persons who have completed the requirements for, but have not yet received, the bachelor's degree may register in the Graduate College provisionally.

Admissions by the Dean for Graduate Studies to pursue graduate work are limited to the number that can best be handled to the advantage of the college and the students. Preference is given to residents of Nebraska, to individuals who wish to pursue study that can be adequately supported by UNMC resources, and to those who have adequate preparation and time for their proposed program.

Acceptance of Senior Credits
Seniors at an accredited institution who have obtained in advance the approval of the Dean for Graduate Studies may receive up to 12 hours of credit for graduate courses taken at any campus of the University of Nebraska, in addition to the courses necessary to complete their undergraduate work. Such credits must be earned within the twelve months prior to receipt of the baccalaureate.

Seniors in this University needing not more than nine hours of undergraduate credit to complete the bachelor’s degree and wishing to register for graduate credit may be granted provisional admission to the Graduate College subject to receiving their baccalaureate degrees within one calendar year. Such applicants must follow the regular admission procedures. If admitted, such registration may count as residence in the Graduate College.

Course work taken for graduate credit at this institution prior to receipt of the baccalaureate degree may not always be accepted for transfer to other institutions as graduate work. Students admitted to professional colleges at the University of Nebraska may enroll in up to a total of nine credit hours of graduate-level courses (800 and 900 series) as electives in the professional curriculum with the approval of the dean of the professional college, the instructors for the graduate courses, and the Dean for Graduate Studies. In exceptional circumstances, registrations above nine credit hours may be permitted subject to the same approval.

Graduate Record Examination
Applicants for admission are advised that their scores on the Graduate Record Examination constitute a desirable credential to submit in applying for admission and may be required for admission to certain programs. Arrangements to take the Graduate Record Examination may be made through the Educational Testing Service, CN6000, Princeton, New Jersey, 08541-6000. Institutional Code 6896.

Foreign students
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. Scores on the General Test and any appropriate Advanced Test of the Graduate Record Examination must reach the Graduate Studies Office before the application can be considered. Official score reports from the Educational Testing Service are required. Photocopies will not be accepted. Under no circumstances will we accept GRE scores that are more than three years old. Computer-based scores from the People's Republic of China (including Hong Kong), Korea, and Taiwan will not be accepted if taken prior to July 2003. Foreign students admitted for graduate study on the basis of undergraduate work completed in a college or university in which instruction is in a language other than English will be required to demonstrate acceptable proficiency in English before they will be eligible for admission to candidacy for a Master's degree or for approval of their program of studies for the PhD degree.

Application for Admission
An application for admission, a $45 application fee, three letters of recommendation, a narrative describing the applicant's career goals, a felony disclosure statement and official transcripts of all college work must be sent to the Office of Academic Records by the program deadlines. Students applying late may encounter delays in admission and may not be able to register for the desired session. Transcripts and all other materials submitted in support of an application become the permanent property of the University and will not be returned.

Admission Status
Graduate students will be admitted to the following categories:

Full Graduate Standing
Students who have met the minimum requirements for admission and who have been accepted by a department or interdepartmental degree program for work leading to a graduate degree.

Provisional Status
Students who show potential for successful graduate work but have deficiencies in prerequisite course work or other admission stipulations. Students with Provisional Status cannot become candidates for a degree unless they are recommended for Full Graduate Standing by the cognizant Graduate Committee.

Nondegree-Seeking Status
Students who satisfy minimum admission requirements and desire to complete a minimum of course work without a degree objective.

Departmental and group requirements
Students who wish to become candidates for advanced degrees must fulfill the particular requirements of the program in which they wish to major as well as the general requirements of the Graduate College. Graduate students may be required to attain proficiency in their field of concentration by participation in the instruction of students in a regularly required course.

SCHOLARSHIP REQUIREMENTS

Overview
A student failing to receive a minimum acceptable grade in a course for graduate credit may not continue his/her program of studies without permission of the Supervisory Committee or the program Graduate Committee concerned. The committee's decision, along with an appropriate explanation and justification, must be filed in the Graduate Studies Office.
To receive credit in didactic and seminar-type graduate level courses, it is expected that students will perform at the level of B or above in any course that is offered for graduate credit. However, a minimum grade of C may be acceptable for graduate level courses, but receipt of two grades of C may be cause for dismissal. Any grade below C is not acceptable for graduate credit.

A student who fails to maintain an overall grade point average of at least 3.0 in any given semester will automatically be on academic probation and may not continue his/her program of study without special permission of the Dean for Graduate Studies acting on the recommendation of the appropriate graduate or supervisory committee. The recommendation must include a review of the student's status and a program of remediation. To continue in the Graduate Studies program, the student must remove the probationary status (i.e., return to an overall 3.0 grade point average) within the next twelve (12) months.

Because research activities comprise a major part of the endeavors of graduate students, excellence in research is expected of all students. Therefore, a failing grade in any research activity (nonthesis research, Master's Thesis, or Doctoral Dissertation) may be grounds for dismissal.

The above minimum scholarship requirements apply to ALL students enrolled in ANY course for graduate credit. Additional requirements may exist for certain graduate programs and departments as set forth in this Bulletin, in the departmental course listings and/or in department/program descriptions which may be provided to students at the time of admission.

If a student fails to pass the comprehensive examination or the final oral examination (defense of thesis/dissertation) for an advanced degree, his/her committee must report to the Graduate Studies Office, within seven days of the examination, the failure together with the committee's recommended action. If this recommendation allows another examination, the committee should indicate what the student must do prior to such re-examination. No student shall be permitted to take either the comprehensive or final oral examination more than twice and the student must wait a minimum of three months before retaking the examination.

Grading system
Graduate students are graded by letter grades as follows: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, P (Pass), F (Fail), WP (Withdrew Passing), WF (Withdrew Failing), and I (Incomplete). Only a Pass/Fail grade is to be used for research projects, thesis or dissertation work.

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. Each instructor must judge each situation.

The instructor must also indicate by a departmental record, with a copy to the student, how and by when the Incomplete is to be removed, and if he/she is at the University at the time of the removal, 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 a grade of F. Any extensions to the one-semester time frame must be arranged with the Dean for Graduate Studies 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 which are part of the degree requirements must be removed at least one month before the final oral/written examination for the Master's or PhD degrees.
The following quality points are given for courses completed:

Grade	Quality Points
A+	4.0
A	4.0
A-	3.67
B+	3.33
B	3.0
B-	2.67
C+	2.33
C	2.0
D+	1.33
D	1.0
D-	0.67
F	0

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 are not used in determining grade point averages.

A student may repeat a course in which he/she has previously received an unsatisfactory grade with the approval of the student's advisor, course instructor, and the Dean for Graduate Studies. 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.

Transfer of credit

All graduate credits to be counted toward the satisfaction of subdoctoral degree requirements — including all transfer credits — must be approved and recommended by the cognizant Graduate Committee of the student's major department or area. Not less than 50 percent of the course work required for any subdoctoral graduate degree must be completed at the University of Nebraska.

No graduate credit will be accepted for transfer unless earned at an institution fully accredited to offer graduate work; nor should the student expect any graduate credits to be transferred unless the Graduate Committee evaluates the quality and suitability as equal to or superior to offerings available at the University of Nebraska.

Students should order official transcripts of graduate work taken elsewhere at least one semester before the student intends to graduate. Transcripts should be sent to the Graduate Studies Office, University of Nebraska Medical Center, 987810 Nebraska Medical Center, Omaha, Nebraska 68198-7810.

DEGREE REQUIREMENTS

Overview

The general requirements for the Master's and Doctor of Philosophy degrees conferred upon the recommendation of the Graduate College are discussed on the pages immediately following. Students must also become familiar with whatever additional requirements their specialty requires. These are set forth in this Bulletin under the departmental course listings and in departmental program descriptions which may be provided to students at the time of their admission.

The Graduate College has established a residency requirement for the purpose of ensuring that the doctoral program should be reasonably compact, continuous, coherent, and that a substantial portion be done at the University of Nebraska or under supervision of the faculty of the University of Nebraska. For any student beginning a doctoral program at the University of Nebraska Medical Center, the residency requirement for the PhD is that at least one-half of the course requirements (other than dissertation) be completed within a consecutive eighteen-month period, with the further provision that the courses be taken after receipt of the Master's degree or its equivalent. Attendance at seminars also is required.

In exceptional circumstances, when it is clear that the purpose of residency will be fulfilled although the above formal conditions are not met, the student's Supervisory Committee may, with the approval of the Dean for Graduate Studies, recommend alternative procedures for satisfying the residency requirements. The plan for satisfying residency requirements shall be a part of the student's approved program.

A minimum of four full years of graduate study is normally required to complete a program for the degree of Doctor of Philosophy for a student who enters the program with the Bachelor's Degree. Neither the courses completed nor the time spent in study determines completion of requirements for the PhD degree. It is earned primarily through the pursuit of excellence in some special field of scholarship which involves the demonstrated ability to conduct independent research.

The PhD degree must be completed within seven years from the date of initial registration as a PhD-objective student.

To complete the PhD degree, certain minimal course requirements must be met. For most programs this is accomplished by taking a core of courses defined by each of the programs. Students admitted to a graduate program that does not offer a core curriculum must meet the following minimum course requirements.

The student must complete at least nine graduate level courses, only three of which may be "introductory" courses (800 level with 600 level or lower counterparts). Although the student's Supervisory Committee may require nondissertation research work, special topics or techniques courses, foreign language courses, etc., none of these may be used to meet these basic course requirements. It is the responsibility of the Supervisory Committee in conjunction with the Graduate Committee to ensure adequate didactic preparation of the student. UNMC offers a

program on matters of Responsible Conduct in Research. All PhD graduate students must attend this program at least once.

All students are required to participate in the seminar program within their major area. A dissertation of publishable quality must be completed and successfully defended (see below). In addition, evidence must be presented that the dissertation material has been submitted for publication in a peer review journal.

Qualifying Procedure
Certain programs may require specific qualifying procedures and/or examinations which must be completed during the early phases of study. Departmental or program qualifying requirements are designated in sections of this bulletin which describe each program or in guidelines provided by the individual programs. If a qualifying examination is required, the majority vote of the examining committee is required to pass the examination.

The Request for Scheduling the Qualifying Examination must be received by the Graduate Studies Office two weeks prior to the examination, and the report of the outcome of the examination must be filed on the appropriate form in the Graduate Studies Office, within seven days following the examination.

Supervisory Committee and Program of Studies
Upon recommendation of the program Graduate Committee, the Dean for Graduate Studies shall appoint for each student a Supervisory Committee of at least four members, all must be Graduate Faculty. It is urged that one or more members of the Supervisory Committee be from a field or fields of study different from the major area of interest, whenever such representation will contribute to the student's program and/or the overall effectiveness of the graduate program.

Faculty from outside the University of Nebraska may serve as members of the Supervisory Committee. As with other members of the Committee, these individuals are appointed by the Dean for Graduate Studies upon recommendation of the program Graduate Committee. Within four weeks of its appointment the committee shall meet to designate and subsequently to file in the Graduate Studies Office a proposed program of studies, including designation of all required courses and the general area of research for the dissertation. Any subsequent change in the program or in the dissertation topic shall be approved by the Supervisory Committee and the action reported to the Graduate Studies Office.

Comprehensive examination and admission to candidacy
When a student has substantially completed his/her didactic studies, he/she must pass a comprehensive examination which may consist of several parts. The comprehensive examination is not a repetition of course examinations but is an investigation of the student’s breadth of understanding of the field of knowledge of which his/her special subject is a part.

At the discretion of the Supervisory Committee or as a program requirement, the student may be required to pass either an oral or written comprehensive examination, or both.

The Supervisory Committee or program Graduate Committee arranges for the written and/or oral comprehensive examination. The Request for Scheduling the Comprehensive Examination form must be received by the Graduate Studies Office not later than two weeks prior to the examination. The report of the outcome of the examination must be filed on the appropriate form in the Graduate Studies Office within seven days following the examination. If more than one member of the Supervisory Committee recommends failure, the student shall be considered to have failed the examination.

In the event of failure the Supervisory Committee shall recommend to the Dean for Graduate Studies whether the student should be given the option of retaking the examination and, if so, the Committee shall identify general areas of weakness which require special attention and any remedial actions which the student should complete prior to re-examination. No student shall be permitted to take either the written or oral portion of the comprehensive examination more than twice.

When the student has passed the comprehensive examination and satisfied the requirements of his/her approved program, as well as other requirements of the Supervisory Committee, the committee will recommend to the Graduate Studies Office the student's admission to candidacy for the PhD degree. Such a report must be filed at least seven months prior to the final oral examination (defense of dissertation).

A student is formally recognized as a candidate as of the date of completing the comprehensive examination. If the term of candidacy is extended beyond three years, the candidate must pass another comprehensive examination. Following admission to candidacy the student must be continuously registered in the Graduate College until receipt of the PhD degree. Students not in residence may register for a minimum of one semester hour credit in dissertation. Failure to maintain continuous registration will result in the termination of candidacy.

Dissertation

The dissertation is not of fixed length. It should treat a subject from the candidate's field as approved by the Supervisory Committee. It should show the student's technical mastery of the field and should advance or modify former knowledge; i.e., it should treat new material, or find new results, or draw new conclusions, or it should interpret old material with new insights. Each candidate for the degree shall submit with the dissertation an abstract, not exceeding 350 words in length including the title. Before completion of the degree there must be evidence that the dissertation material has been submitted for publication in a peer review journal.

The dissertation and abstract are to be presented to the members of the Supervisory Committee at least four weeks before the final oral examination (defense of dissertation). It is the student's responsibility to ensure that, at that time, the dissertation has been properly formatted and has been thoroughly checked for errors in terminology, grammar and spelling. During the ensuing period of at least two weeks, the members of the Supervisory Committee will have the opportunity to review the dissertation to determine whether it is in a fit condition, based on formatting, writing quality and preliminary scientific criteria, for the defense. Upon receiving

such approval (or if no serious objections are raised), the Application for the Final Oral Examination (Defense of Dissertation), signed by the student and the major advisor, should be submitted to the Graduate Studies Office. The defense will then be scheduled no sooner than two weeks after receipt of that form.

Following the successful completion of the defense (see below), two copies of the dissertation and three copies of the abstract must be presented to the Graduate Studies Office before being deposited by the student in the McGoogan Library of Medicine. The first page of one copy of the dissertation shall bear the signatures of all members of the Supervisory Committee who approve the dissertation. The first page of the second copy shall indicate the names (typed) of all members of the Supervisory Committee who signed the original title sheet. This typed title sheet will be microfilmed with the dissertation.

The student must also present to the library a signed agreement for the publication of the abstract and microfilming of the dissertation. To meet requirements for completion of the degree in a given semester, the approved dissertation and evidence of the successful defense must be in the Graduate Studies Office one week before the end of the semester.

Before the degree is granted, each candidate will pay a fee to cover the cost of microfilming the entire dissertation and of publication of the abstract in Microfilm Abstracts published by Xerox University Microfilms of Ann Arbor, Michigan.

Defense of dissertation
This final examination is oral and public. It is given by the Supervisory Committee after all other requirements have been met. The Committee also determines the character and length of the defense. The examination may be devoted to the special field of the dissertation or to related matters, or it may be designed to test the candidate's judgment and critical powers.

The defense of dissertation will not be scheduled unless the Chair of the Supervisory Committee and at least two other members of the committee are available for the examination. Exceptions may be made only by permission of the Dean for Graduate Studies.

A report of the outcome of the defense of dissertation must be filed in the Graduate Studies Office within seven days following the examination. If more than one member of the Supervisory Committee recommends failure, the student shall be considered to have failed the examination. In the event of failure, the Supervisory Committee shall recommend to the Dean for Graduate Studies whether the student should be given the option of retaking the examination and, if so, the Committee shall identify general areas of weakness which require special attention, and any remedial actions which the student should complete prior to re-examination. No student shall be permitted to take the final oral examination more than twice and the student must wait a minimum of three months before retaking the examination.

Summary of procedure for the Doctor of Philosophy degree
This summary of procedure should be studied carefully in connection with the Graduate Studies calendar.

1. Admission to the Graduate College.

2. Registration after consultation with the advisor and with the approval of the Dean for Graduate Studies.
3. Satisfactory completion of any qualifying requirements.
4. Appointment by the Dean for Graduate Studies of a Supervisory Committee on the recommendation of the departmental or area Graduate Committee.
5. Submission to the Graduate Studies Office of a program approved by the Supervisory Committee setting forth the proposed plan of study for the degree prior to completion of more than half of the total requirements.
6. Satisfactory completion of any foreign language or research tool requirements set forth in the approved program. Passing of the comprehensive examination when the student's program of courses is substantially completed. The Request for Scheduling Comprehensive Examination form must be received in the Graduate Studies Office two weeks before the proposed date of the examination. The Examination Report Form must be received in the Graduate Studies Office within seven days following the examination.
7. Admission to candidacy for the PhD degree by filing a report in the Graduate Studies Office of the passing of the Comprehensive Examination (at least seven months before the final oral examination). The term of candidacy is limited to three years.
8. Filing of an application for the diploma at the Office of Academic Records and payment of the $25 graduation fee by the appropriate deadline. This application is effective during one term only. It must be renewed at the appropriate time if requirements for graduation are not completed until a later term.
9. Presentation to the Graduate Studies Office of evidence of submission of dissertation material to a peer review journal.
10. Presentation of the dissertation and the abstract to the Supervisory Committee at least four weeks prior to the final oral examination.
11. Presentation to the Graduate Studies Office of the application for the final oral examination at least two weeks prior to the date of that examination.
12. Passing of final oral examination and submission of a report of the outcome of the examination to the Graduate Studies Office within seven days following the examination.
13. Two copies of the dissertation in proper form, and three copies of the abstract, presented to the Graduate Studies Office. These same two copies of the dissertation, one copy of the abstract, and the signed agreement for microfilming the dissertation and publication of the abstract must be deposited with the Director of the McGoogan Library of Medicine. Payment of the abstract fee and optional copyright fee. Delivery of the Report on Doctoral Degree, signed by members of the Supervisory Committee, the Director of the McGoogan Library of Medicine, and the Cashier, to the Graduate Studies Office. In addition, one bound copy of the dissertation is to be deposited with the student's major department.

GENERAL INFORMATION

Registration
Registration is accomplished before each academic term. Information and instructions regarding registration are circulated prior to the date of registration. Students must be formally admitted to the Graduate College to register in graduate courses.

Information about 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.
A detailed list of fees is published in the UNMC Student Handbook.

Tuition refund policy
Students who withdraw may receive a refund of a portion of their tuition for the term in which they are registered. (See the UNMC Student Handbook.)

Application for the diploma
Each student who expects to receive a diploma must file an application for the diploma in the Office of Academic Records and pay a $25 non-transferrable, non-refundable graduation fee. Announcements concerning deadlines for applications are posted throughout the campus and published in the internal communications of the Medical Center and on the UNMC student website.

Commencement exercises
Commencement attendance is required, unless explicitly excused by the Dean for Graduate Studies, for those completing degree requirements when a formal commencement is offered — usually in May and December. Those graduating in August have the privilege of participating in the next formal commencement.

Audit
A course may be audited with the permission of the instructor and the Dean for Graduate Studies provided that the student is academically qualified, there is adequate space and facilities, and the student is interested in the course but does not wish to earn academic credit. The student's advisor is normally consulted in this process.

Application forms for auditing courses may be secured from the Office of Academic Records. The cost for auditing a course is one-half the current resident tuition. Arrangements must be made to audit of a course before the final date for adding a course.

Drops and withdrawals
Students may drop a course (see below for circumstances where students withdraw from the University) at any time during the first eight weeks of the semester. After the first week, a grade of "W" will appear on the transcript. The approval of the student's advisor, the instructor of the course, and the Dean for Graduate Studies is required. No student may drop a course after the deadline dates unless the student is able to demonstrate that conditions unforeseen at the time of

registration, such as illness, will not permit continuance in the course. These unforeseen conditions will in no case be considered to include unsatisfactory scholarship.

Students withdrawing from the University are required to initiate their withdrawals in the Office of Academic Records. Grades are assigned by the instructor on the date of withdrawal. A grade of WP is given if the student is considered to be doing passable work; a grade of WF is given if the student is considered to be doing failing work at the time. The withdrawal form must be completed with appropriate signatures to insure appropriate entries for the permanent record.

Employment and registration

Graduate students holding major fellowships or traineeships are expected to be enrolled in a full program of studies and are not to engage in other remunerative employment without permission of the Dean for Graduate Studies.

Graduate students who are not employed, or graduate research assistants who are performing duties that are 100 percent thesis/dissertation related, may register for a maximum of 15 credit hours during a semester, 6 credit hours during one five-week summer session, 9 credit hours during one eight-week summer session, or 3 credit hours during a pre-session.

Graduate students who are employed are not to exceed registration limitations established by the Graduate Council. These limitations reflect the fact that graduate-level course work serves mainly as a guide for independent, scholarly study. Graduate students are expected to master the course subjects and to devote substantial time in independent library and laboratory investigation beyond minimum credit hour requirements. Graduate students who are employed, hold a teaching assistantship, or hold a research assistantship that is not thesis/dissertation related must not exceed the following registration limitations:

Maximum registration (credit hours)

Hours employed per week	Semester	8-week summer session	5-week summer session	3-week summer session
12-15	12	8	5	2
18-22	10	6	4	2
Full time	6	4	3	1

Any exception to these registration limits requires permission from the Dean for Graduate Studies upon recommendation of the committee in charge of the student's program.

Full-time status

Graduate 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, whether or not the student holds a graduate assistantship. With approval of the Dean for Graduate Studies, students in the final semester of a Master's degree program or candidates for doctoral degrees registered for fewer than the minimum hours required for a full program may be granted full-time status provided they are not employed more than 20 hours per week (half-time).

Intercampus registration
Graduate 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 available on-line at https://net.unmc.edu/care or on this website under "Registration Information". After the form is processed, you will be contacted by the host campus for further registration instructions.

Residency requirements
Each term, students are asked to certify their residency as part of the registration procedure. Students who reside in a state other than Nebraska or who have recently moved to Nebraska must apply for resident status. The Office of Academic Records has full information on the requirements for residency and the forms for applying for resident status.

Under an agreement between the Board of Regents of the University of Nebraska and the Board of Curators of the University of Missouri, graduate students meeting the regular in-state requirements of the University of Missouri shall be regarded as in-state students at the University of Nebraska with respect to admission requirements, tuition and fees, scholarships, fellowships, and assistantships and other benefits normally available to Nebraska residents. Residency needs to be verified through the University of Missouri with a letter being sent to Academic Records.

Services for veterans
All men and women planning to attend UNMC under Chapters 31, 34, and 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.

Financial assistance

Loans
Students who need to borrow funds for college expenses should inquire at the Financial Aid Office, 402-559-4199 or jdwalker@unmc.edu.

Assistantships
A number of teaching or research assistantships are available from various departments within UNMC. All inquiries regarding assistantships should be directed to the department. Graduate assistants must be registered during the period of their appointments unless specifically excused by the Dean for Graduate Studies.

A student on appointment as a Graduate Teaching or Research Assistant is eligible to pay tuition and fees at resident rates if the stipend received is equal to or greater than the nonresident tuition and fees for 9 credit hours during an academic year semester (3 credit hours during a five-week summer session, 4 credit hours during an eight-week summer session).

During 2009-2010, tuition for 12 hours credit per semester was remitted by the University for students on graduate assistantships with at least one-third time appointments. Students holding such appointments should check with the Graduate Studies Office at the time of registration to determine if they qualify for tuition remission.

Fellowships and traineeships

A number of restricted and unrestricted fellowships and traineeships are available to students at UNMC. To be eligible an applicant must be admitted to a graduate department or area with a degree objective. Students interested in applying for these fellowships should contact the Graduate Studies Office for information. Fellowship recipients are expected to devote full time to graduate study during the period of their appointment and may not engage in remunerative employment without the permission of the Dean for Graduate Studies.

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.

Access to student records

In accordance with federal law as established in 1974 by the Family Educational Rights and Privacy Act, the University of Nebraska Medical Center maintains the confidentiality of student records and allows students to inspect and review information in their educational records at the Medical Center. The UNMC policy statement concerning student records may be found in the current UNMC Student Handbook or in the Office of Academic Records.

ACADEMIC AND GRADE APPEALS

Introduction
Under the provisions of the Bylaws of the Board of Regents, students may appeal grades or other evaluations of their academic progress which they believe to have been prejudiced or capricious. In those cases in which informal attempts fail to resolve the problem, appeals or complaints should henceforth 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 campus Graduate Council will serve as the Appeals Committee. For purposes of considering appeal of grades and other course evaluations (see Section IV), the campus Graduate Council will reconstitute itself as a Graduate Faculty-Student Appeals Committee. It will be augmented by an additional student to be recommended by the Graduate Student Association. In the absence of a functioning Graduate Student Association, the additional student representative would be selected by the Dean for Graduate Studies.

In these deliberations, both students will be voting members of the Graduate Faculty-Student Appeals Committee. The Dean for Graduate Studies will not be present during deliberations of the Graduate Faculty-Student Appeals Committee; a member other than the Dean will act as chair. Any members 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, etc.) should be replaced through ad hoc appointment(s) made by the Dean for Graduate Studies.

Intercampus students
When a student's graduate program consists of registrations essentially or entirely on one campus, the Appeals Committee of the campus administratively responsible for the program will constitute the appeal board.

When a student's graduate program includes substantial registrations on a campus other than the one administratively responsible for the program, three members of the Appeals Committee for the other campus will be designated by the Dean for Graduate Studies on that campus to augment the Appeals Committee on the campus administratively responsible for the program. In this case, the augmented Appeals Committee will constitute the appeal board.

The decision concerning augmentation of a campus Appeals Committee for a specific appeal involving registrations on a campus other than the one administratively responsible for the student's program will be made by the Deans for Graduate Studies on the campuses involved.

Appeal of matters other than grades
A. Graduate students holding admission with unclassified status in the Graduate College, admission with a master's objective, or admission with a doctoral objective (but prior to the appointment of a doctoral supervisory committee) 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. Initially, after official notification is received by the student, the appeal or complaint should be discussed with the student's advisor in an attempt to resolve the conflict informally.
2. If the matter is not resolved satisfactorily, the appeal or concern may be submitted in writing to the Departmental or Interdepartmental Area Graduate Committee administratively responsible for the student's program. 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 Graduate Committee is denied, within thirty days of receipt of the denial notice a written appeal may be made to the Graduate Council for the campus administratively responsible for the student's program. At this point the student may be accompanied and advised by legal counsel. During these proceedings, legal counsel may not cross-examine or otherwise formally participate. The Graduate Council may also wish to have legal counsel present. Normally, the Graduate Council will be the-final appeals body (for exceptions, see paragraph III C).

B. Graduate students holding admission with a doctoral objective in the Graduate College and for whom a doctoral supervisory committee has been appointed should use the following procedure for appeals concerning general academic matters or evaluations:

1. Initially, after notification is received by the student, the appeal or complaint should be discussed with the student's advisor in an attempt to resolve the conflict informally.
2. If resolution is not achieved, the appeal may be submitted to the student's supervisory committee within thirty days after the meeting which resulted in no resolution of the complaint.
3. If resolution is not achieved, the appeal may be submitted in writing to the Departmental or Interdepartmental Area Graduate Committee administratively responsible for the student's graduate program within thirty days of receipt of the denial notice by the student.
4. If denied, a written appeal may be made within thirty days of receipt of the denial notice to the Graduate Council for the campus administratively responsible for the student's graduate program. At this point the student may be accompanied and advised by legal counsel. During these proceedings, legal counsel may not cross-examine or otherwise formally participate. The campus Graduate Council may also wish to have legal counsel present. Normally, this will be the final appeals body (for exceptions, see paragraph III. C.).

C. Role of the Executive Graduate Council

1. In most cases the decision of the campus Graduate Council will be final. Only under special circumstances the Executive Graduate Council hear an appeal from the decision of the campus Graduate Council. These circumstances are limited to occasions where the Executive Graduate Council believes that:

    a. The campus Graduate Council has violated some element of due process or fair procedure (example: the concerned parties were not allowed to present their cases fully to the Graduate Council).
    b. The campus Graduate Council has failed to examine or give adequate weight to important evidence relevant to one party's position;

c. The campus Graduate Council has given undue weight to evidence not pertinent to the case;
d. Some gross miscarriage of justice would be perpetrated if the decision of the campus Graduate council were allowed to stand.

It is up to the discretion of the Executive Graduate Council to decide if any of these conditions exist.

2. Appeals to the Executive Graduate Council must be made in writing and must specifically outline the grounds for the appeal. Such appeal must be made within 20 working days of the day the decision of the campus Graduate Council is received (working days will not include those days the University is not in session).
3. The Executive Graduate Council must make a decision to hear the appeal or not to hear the appeal within 30 working days after receipt of the appeal. Acceptance or denial of jurisdiction over the appeal will be made in writing.
4. The decision of the Executive Graduate Council on the merits of the case will be made and transmitted to the concerned parties within 40 working days after the decision to hear the appeal.
5. No person who was a member of the department or campus Graduate Council involved in the case will be eligible to participate in the decisions of the Executive Graduate Council either to decide whether the case should be heard or to decide the merits of the case.

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:

A. Initially, an attempt should be made to resolve the matter through discussion with the instructor of the course for which the grade was received.
B. If the matter is not resolved satisfactorily, the appeal may be submitted in writing to the chair of the department in which the course was taken.
C. If the matter is not resolved satisfactorily, the appeal may be submitted in writing to the Graduate 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.
D. The Graduate Faculty-Student Appeals Committee will be the final authority in resolution of grade appeals, except that either the student or the faculty member issuing the grade may within ten days submit an appeal in writing to the Dean for Graduate Studies 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.

Approved by UNMC Graduate Council: 2/22/79; amended 5/20/82 and 2/25/99

General procedures for student discipline actions
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 which must be followed if any disciplinary action is proposed against students. Students will be informed in writing by the Dean for Graduate Studies of the specific charges, the supporting evidence, and the proposed disciplinary action. The Dean for Graduate Studies 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**.**

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 graduate 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.

STUDENT SERVICES

Health services for students
Students registered for five or more hours per semester are required to participate in the outpatient student health services as provided by the Department of Family Medicine; participation by students registered for less than five hours per semester is optional. Hospitalization and major medical costs are not covered for students by outpatient Student Health. These charges will be filed with your insurance carrier (for UNMC insurance, claim forms can be obtained from the Student Insurance office by calling 559-7276).

All graduate students registered for five or more hours per semester are required to have health and accident insurance through a student insurance program contracted by UNMC unless evidence of comparable coverage is provided. All UNMC students are required to be skin tested annually for tuberculosis and those who may have direct contact with patients or with material that may be contaminated with Hepatitis B virus must be immunized against Hepatitis B before there is any opportunity for such exposure. Specific details regarding Student Health Services, the student insurance program, and student immunization policies can be found in the **UNMC Student Handbook**.

Student health information can also be found at
http://www.unmc.edu/familymed/studenthealth/

Counseling & student development center
The UNMC Counseling and Student Development Center offers a wide range of professional counseling services, including general problem-solving, individual psychotherapy, stress management training, couples counseling, career exploration, communication consulting, and academic performance enhancement. These services are provided free of charge to all UNMC graduate students and their significant others. Counseling Center staff members have master's degrees in counseling or clinical social work, and the director is a licensed psychologist.

Counseling services are provided in a private, confidential environment. With the exception of life-threatening situations (clear danger to self or others), no information is released without the written consent of the client. Counseling files cannot be accessed through any UNMC or hospital computerized records systems. And since services are free, there is no need to file insurance claims.

In addition to personal counseling and consultation services, the center coordinates several student development programs designed to enhance the overall quality of campus life at UNMC.

These programs include:
- Student government advising and administrative support.
- The academic success program (study skills, learning style assessments, test-taking).
- Student clubs and organizations.
- The student insurance plan (policy revisions, claim filing).
- Substance abuse education.

- Services for disabled students.
- A variety of new student orientation activities.

Graduate students from all UNMC programs are invited to visit the Counseling Office located in the Student Life Center, third floor, room 3015. To schedule a counseling appointment or to ask questions, please call 559-7276.

Student Ombudsperson
UNMC has established an Ombudsperson system for all students, faculty and staff. The intent of the Ombudsperson Office is to help students and others resolve problems and to promote fair and equitable treatment for all members of the UNMC community. Dr. David Carver has been designated as the primary Ombudsperson for the students at UNMC, but other individuals may also be utilized. Contact the Ombudsperson Office for more information on this service (402-559-2491).

Educational resources
Research laboratories containing modern equipment within the various colleges and institutes are available to students pursuing advanced research training. Modern computer facilities are available for graduate student research and education through the UNMC Computing Services.

The Leon S. McGoogan Library of Medicine is one of the country's major health science libraries. The library's collection numbers over 240,000 volumes, with a current journal list of 4,500 titles, over 3,500 of which are available in electronic format. The library's catalog of books, journal holdings, and electronic resources such as MEDLINE and other health-related databases can be searched 24 hours a day both on and off campus from the Library's webpage at **http://www.unmc.edu/library.** However, licensor restrictions limit availability to some electronic journals to on-campus only.

Multimedia materials for computer-assisted instruction are collected and made available in the Sievers Facility for Interactive Instruction and adjacent Learning Resource Center. Reference and Education Services provide assistance and instruction with information needs, self-searching of numerous health related databases and understanding the concepts and scope of medical information management. Document delivery and interlibrary borrowing are also available, as are special services such as dissertation binding and medical and consumer health information services for the state of Nebraska.

Student equity and multicultural affairs
The goal of the **Office of Student Equity and Multicultural Affairs** (OSEMA) is to advance the equal education opportunity commitment of the University of Nebraska Medical Center by implementing recruitment and retention activities that identify and support students seeking a health care/research career with special emphasis on activities which target increasing the number of minority and disadvantaged persons entering and successfully completing the health/research careers educational pathways. The objectives of the office are to:

- Coordinate recruitment and retention activities with UNMC program units to recruit and retain qualified students with a special emphasis on recruitment and retention of underrepresented minorities and disadvantaged students.

- Promote retention by providing support services to enhance the performance of all enrolled students.

- Provide services for undergraduate students that will improve their chances for admission and sustain their interest in the career of their choice.

- Identify, motivate and prepare students at the pre-college level to explore and pursue health career options.

- Collaborate with UNMC departments, other educational institutions and community organizations to implement outreach programs that promote health career education.
- Participate in and initiate community relations efforts that promote health care careers and health care education at UNMC.

- Facilitate the continuing development of in-state and out-of-state affiliation agreements with other institutions of higher education to diversify the faculty and studies bodies.

Student organizations

Graduate Student Association. The Graduate Student Association of the University of Nebraska Medical Center (GSA-UNMC) is open to all students in an approved graduate program. The GSA-UNMC serves as a voice for the graduate students at the Medical Center, investigating and proposing solutions to problems unique to graduate students.

The GSA-UNMC annually elects a representative to the Medical Center Graduate Council.

Medical Center Student Senate (MCSS). 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 or Patti George at 559-7276.

New student organizations
UNMC students who wish to establish a student organization and use campus facilities must receive formal recognition and approval. Application forms and guidelines can be obtained from the Counseling and Student Development Office, Student Life Center Room 3015 (phone 559-7276).

GUIDELINES FOR PHD SUPERVISORY COMMITTEES

Matters Requiring Action by the Supervisory Committee

- Acceptance of graduate credit from any other institution. Such credits should be carefully scrutinized both as to the institution attended and in relation to the proposed program. Credit for courses other than graduate level courses will not be approved.
- Approval of graduate program at Nebraska.
- Authorization of arrangements for comprehensive examination.
- Approval of the dissertation subject.
- Acceptance of comprehensive examination and recommendation of student for admission to candidacy.
- Approval of the dissertation and dissertation abstract.
- The final oral examination.

Duties of the Chair

The Chair is responsible for transmitting to the Graduate Office:

- Minutes of all meetings of the Supervisory Committee. Please note that the major advisor should ensure that the Supervisory Committee meets at least twice a year.
- A copy of the proposed program of graduate studies including any graduate credit accepted from another institution.
- Request for Comprehensive form due in Graduate Office 2 weeks before comprehensive.
- Report on the comprehensive examination due within 7 days after the date of the examination.
- The formal application for admission to Candidacy. This is presented immediately after the comprehensive examination has been passed and at least seven months prior to the final oral examination.
- Presentation to the Graduate Studies Office of evidence of submission of dissertation material to a peer review journal.
- Presentation of the Dissertation and Abstract to members of the Supervisory Committee at least four weeks before the final oral examination (defense of dissertation). **It is the student's responsibility to ensure that, at that time, the dissertation has been properly formatted and has been thoroughly checked for errors in terminology, grammar and spelling.** During the ensuing period of at least two weeks, the members of the Supervisory Committee will have the opportunity to review the dissertation to determine whether it is in a fit condition, based on formatting, writing quality and preliminary scientific criteria, for the defense. Upon receiving such approval (or if no serious objections are raised), the Application for the Final Oral Examination (Defense of Dissertation), signed by the student and the major advisor, should be submitted to the Graduate Studies Office.
- At least two weeks prior to the final oral examination, the application for final oral examination.

- Two copies (the original and a copy) of the dissertation, and three copies of the abstract are to be presented to the Graduate Studies Office before deposition of the dissertation in the Library. (The two copies of the dissertation and one copy of the abstract will be returned to the student for deposition in the Library of Medicine.)
- Presentation of the Final Report for Degree (together with other required forms) to the Graduate Studies Office.

Guidelines for PhD Supervisory Committees

- **Form for Report of Supervisory Committee on Program of Studies.** A report of the Supervisory Committee outlining a program of studies for the PhD degree must be submitted to the Graduate Office within four weeks of appointment of the Supervisory Committee. When credits earned at other institutions are included in the program, the work should be carefully evaluated both as to the institution attended and in relation to the proposed program. Other matters requiring action by the Supervisory Committee are explained on the form.
- **Changes in Program of Studies.** Subsequent changes in the program that are approved by the Supervisory Committee should be submitted in writing by the Chair of the Supervisory Committee to the Graduate Office. Following approval, these changes will be noted on the original form and notice of approval will be sent to the Chair of the Supervisory Committee and the student.
- **Comprehensive Examination.** The Request for Scheduling the Comprehensive Examination form is due in the Graduate Office two weeks before the comprehensive. The Report on the Comprehensive Examination form is due in the Graduate Office within 7 days after the date of the examination.
- **Application for Candidacy.** At least 7 months prior to the final oral examination and after the comprehensive examination has been passed, the Chair of the Supervisory Committee is responsible for submitting the formal application to admit the student for Candidacy.
- **Application for Final Oral Examination.** The abstract and dissertation should be available for review by the Supervisory Committee four weeks before a final oral examination is to be scheduled. A dissertation which has been disapproved by Supervisory Committee members should not be accepted until the basis for the disapproval has been removed. If these criticisms involve extensive changes, the question of rejecting the dissertation entirely or postponing the final oral examination until the following semester should be seriously considered by the Supervisory Committee.
    - At least two weeks prior to the final oral examination the Chair of the Supervisory Committee must file in the Graduate Office the Application for Final Oral Examination.
    - Following successful completion of the final oral examination, two copies of the dissertation (the original and a copy) and three copies of the abstract must be presented to the Graduate Office before deposition of the dissertation in the Library of Medicine. The two copies of the dissertation and one copy of the abstract will be returned--these are the copies for deposition in the library after the final oral examination.

    - A report on the final examination is due in the Graduate Office within 7 days after the date of the examination.
- **Abstract and Dissertation.** The advisor and the Supervisory Committee should understand that the entire dissertation including the names of the committee members will be microfilmed exactly as submitted and approved by the committee. Copies of these microfilms are procurable by anyone. This constitutes publication and may be copyrighted but there is no possibility of editorial or other changes in the manuscript after committee approval.
- **Graduate College Calendars.** Graduate College calendars, indicating pertinent deadline dates, are available on line or in the Graduate Studies Office.

  NOTE: It is recommended that the Supervisory Committee meet at reasonable intervals of time to review with the major advisor the progress of the student in the program and to provide assistance to the major advisor and student.

GRADUATE STUDENT PORTFOLIO

The UNMC Outcomes Assessment Plan - Graduate Portfolios

Graduate student performance evaluation is typically and appropriately focused upon coursework as well as the comprehensive examination and the defense of thesis or dissertation. If the development of a grant proposal is the form of comprehensive examination selected by the student, the examiners must not limit assessment to the narrow limits of the research proposal, but also assess the student's broad understanding of the discipline in which the project is based. Nonetheless, assessment of the student's broad understanding of the discipline does not mean reassessment of the student's coursework. Other forms of outcome assessment are also appropriate.

In that regard, during the course of a graduate education, students should develop, with the advice of their mentor(s) and graduate committee, an accurate and comprehensive *curriculum vita*. This document describes their experience and accomplishments across the full range of traditional academic activities (teaching, research and service). Each graduate student is required to develop a portfolio (contained largely in the CV) which will be reviewed annually by their supervisory committee or program graduate committee, and will include all the below items unless inappropriate for the field of choice. An updated copy of the portfolio must be turned in to the Graduate Studies Office by February 1st.

Due At The End Of First Semester Of Study:
Module I:

1) A statement of explanation for the choice of graduate field, the expectations for learning in the field, expectation of outcome and anticipated career goals
2) A statement of what high ethical standards means in a chosen profession

Updated Annually At The End Of Fall Semester:
Module II (A curriculum vitae)

3) Basic information (name, contact information, educational & work history, etc.)
4) Title of graduate research project
5) Honors and awards
6) Seminars presented
7) Meetings attended and papers/posters delivered in those settings
8) Grant experience
   - Applications submitted (outcome)
   - IRB & IACUC applications submitted

Module III (A Research Progress Report)
[NOTE: This section can be modified to fit departmental/program guidelines as well as internal/external fellowship competition & reporting]

9) Restatement of specific aims
10) Progress toward each aim
11) Pitfalls and alternative approaches, if applicable
12) New research skills/techniques learned, if applicable
13) Other new learning achievements, if applicable

(e.g., short course, grant writing workshop, ethics workshop, etc.)

Module IV (Other relevant graduate education activities, if applicable for the program)

14) Teaching exercises engaged in and teaching techniques used along with a self assessment of teaching effectiveness
15) Involvement in technology transfer or translational research (disclosures and patents)
16) Information technology skills

Module V (Terminal year students only)

17) A brief description of what high ethical standards now means to you.
18) A brief narrative addressing how career goals and employment expectations have been refined or changed.

Portfolios are required to be evaluated by each PhD student's Supervisory Committee and each Master student's Program Graduate Committee. Recommended method of reporting is for the minutes of the Fall or Winter supervisory committee meeting to reflect the review and approval of the portfolio. Again, an updated copy of the portfolio is due to the Graduate Studies Office by February 1st.

COLLEGE OF PUBLIC HEALTH COURSE DESCRIPTIONS BY DEPARTMENT

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 (2 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 816/CPH 516 Biostatistical Methods 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, nonparametric methods, and one-way analysis of variance. A brief introduction to correlation and univariate linear regression will also be given. Interpretation of subsequent analysis results will be stressed. Concepts will be explored using the biomedical and public health literature, class exercises, exams, 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 design, analysis, and interpretation of biomedical research or public health studies.
Prerequisites: instructor permission and calculus (covering differential and integral calculus) within the past 5 years resulting in a grade of B or better.

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, prior linear algebra course (covering matrix notation and matrix algebra, equivalent to UNO MATH 2050 or UNL MATH 314), calculus, and Biostatistical Methods I, BIOS 816/CPH 516, or an equivalent introductory statistics course.

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. 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 generating time-to-event data.
Prerequisites: Calculus (covering differential and integral calculus), instructor permission, Biostatistical Methods I, BIOS 816/CPH 516, or an equivalent, calculus-based, introductory statistics course, and Biostatistical Methods II, BIOS 818/CPH 652, or an equivalent, calculus-based, advanced statistics course.

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 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 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 semiparametric 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 970 Seminar (1 credit)

BIOS 998/CPH 679 Special Topics (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 899 Master's Thesis

ENV 902/CPH 619 Special Topics (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/CPH 602 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 999 Doctoral Dissertation (Variable)

EPIDEMIOLOGY (EPI)

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 Prevention and Control (3 credits)
The target audience for this course includes, but is not limited to, students, 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 (EPI 808/CPH650).

EPI 820/CPH 504 Introduction to Epidemiology (formally Epidemiology Theory and Applications) (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 Epidemiology: Advanced Research and Methods (3 credits)
This course presents basic principles and methods of epidemiology in greater depth and detail than presented in EPI 820. The purpose of the course is to further develop the methodologic concepts underlying the science of epidemiology. The material covered is intended to broaden and extend the student's understanding of elements of study design, data analysis, and causal inference in epidemiologic research, including specific emphasis on bias and confounding, and is expected to serve as a foundation for advanced study of epidemiologic methods. The primary goal is to provide working knowledge of the fundamentals of epidemiology to graduate students who wish to further their career in public health research and need more expertise in advanced epidemiologic methods, with the objective of applying these concepts to a broader public health context.
Prerequisites: Epidemiology I (EPI 820/CPH504).

EPI 822/CPH 622 Epidemiology of Biosecurity/Biopreparedness and Emerging Infectious Diseases (3 credits)
1. Students will gain an understanding of the epidemiology and fundamental concepts of emergency preparedness, including:
    a. Disease-pathogenesis, invasiveness, host reaction relevant to preparedness
    b. The public health aspects of diagnostic microbiology
    c. CBRNE (Chemical, Biological, Radiological, Nuclear and Explosive) events

d. Emerging infectious diseases threats
e. Pandemic preparedness (personal and community)
f. The epidemiology of population readiness and response

2. Students will develop and practice core bioterrorism and emergency readiness competencies, including but not limited to preparedness and planning, response and mitigation, and recovery and evaluation.
3. Students will gain an understanding of new public health ethical issues that have arisen in recent emergency response situations.

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 896/CPH 647 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.

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 Epidemiologic Research Development (3 credits)
This course provides students the opportunity to apply principles learned in epidemiologic methods and bios courses to the design of epidemiologic studies. Emphasis is placed on study design and implementation strategies, approaches to minimize bias and improve data quality, and on strategies for valid analysis and interpretation of epidemiologic data. Study protocols will be developed in the context of preparation for submission to the NIH.
Prerequisites: EPI 821, EPI 845 and BIOS 806

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 998/CPH 649 Special Topics (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)
This course will assist students to develop the basic skills to conduct applied research to address contemporary problems in public health. The course will emphasize proposal writing, data collection, research design, statistical analysis, computer application, and writing of research reports. Unique problems associated with data collection in public health settings such as public health departments, neighborhood health centers, and community-based organizations will be addressed. Both quantitative and qualitative research designs will be explored. Considerable emphasis is placed on evaluation of public health research published in scholarly publications. A research proposal/capstone service-learning proposal is written as one of the course requirements.
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 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 credit)
This course is designed to introduce the graduate student to emergency preparedness concepts. Students will explore disaster response related concepts such 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 551Community 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 Education (3 credits)
This course will provide health education 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.

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 Health Education: Instrumentation and Evaluation (3 credits)
This course will build skills for selection, development and analysis of various types of instruments and techniques for conducting process, impact, and outcome evaluations in health education and health promotion. Evaluation of health behavior change and its antecedent's changes in community services/programs, and community health status will be discussed. Students will learn methods for developing/choosing psychometric tools, choosing appropriate evaluation designs, procedures for data collection, and describing evaluation results. Emphasis will be placed on political statistical, and theoretical aspects of instrumentation and evaluation practices.
Prerequisites: waived for MPH students.

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: EPI 820/CPH 504, HPRO 860/CPH 501

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 548

HPRO883/CPH 549 Women's Health
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 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 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 decisionally 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 998/CPH 559 Special Topics (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 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 nondegree students.

HSRA 841/CPH 562 Public Personnel Management (3 credits)
A study of the personnel process in American governmental administration. The processes and problems of recruiting, structuring and operating public bureaucracies are examined as well as problems in personnel leadership, neutrality, accountability and performance.
Prerequisites: None**.** Not open to nondegree students.

HSRA 853/CPH 563 Strategic Planning (3 credits)
This course is designed to have the student understand the relationship between public policy, agency strategy, agency operation and the delivery of public services to citizens. It will provide the student an opportunity to devise a model strategy for a public agency or jurisdiction, introduce the student to a variety of systems for managing particular tasks within the public sector, and give the student the opportunity to construct operating procedures for a specific public program or subprogram.
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 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 Care Policy (3 credits)

This course is designed to instill an understanding of major health care policy making and related issues. The course emphasizes the history/background; physical, social, and economic environment; policy process; and political marketplace of contemporary U.S. health care policies. Students are expected to be knowledgeable about topics such as policy making process, policy implementation, national and state health care policies, health care reform, rural health care, and health planning. The course is intended for students who are enrolled in the MPA Health Specialization, MPH, students from other graduate degree programs who have an interest/need for a course in health care policy, and nondegree graduate students. **Prerequisites:** Graduate standing. Other considerations: A health care background is helpful, but not required.

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 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 860 Seminar in Health Care Administration (3 Credit)
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.

HSRA 998/CPH 589 Special Topics (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: HPRO 805/CPH 505 Applied Research in Health, BIOS 835/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)

Attachments

Attachment 1

Worksheet for Master of Public Health Degree

Biostatistics

Name_____ Academic Advisor_____

UNMC ID# _____

I. Core Requirements (21 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 516 Biostatistical Methods I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 517 Design of Medical Studies	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (12 credit hours)				
CPH 652 Biostatistical Methods II	**3**			
CPH 653 Categorical Data Analysis	**3**			
CPH 654 Survival Data Analysis	**3**			
CPH 655 Correlated Data Analysis	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

***Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Worksheet for Master of Public Health Degree

Biostatistics/Epidemiology

Name_____ Academic Advisor_____

UNMC ID# _____

I. Core Requirements (18 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
Total Core Credit Hours	**18**			
II. Concentration Courses (12 credit hours)				
CPH 650 Biostatistics II (regression/anova)	**3**			
CPH 517 Design of Medical Studies	**3**			
CPH 621 Epidemiology Advanced Design and Methods	**3**			
CPH 620 Chronic Disease Epidemiology OR CPH 623 Infectious Disease Epidemiology	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**42**			

***Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Attachment 3

Plan of Study Worksheet for Master of Public Health Degree

Community Health Education Concentration

Name_____ Academic Advisor_____

UNMC ID#_____

I. Core Requirements (21 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 505 Applied Research in Public Health	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (12 credit hours)				
CPH 534 Interventions in Health Education	**3**			
CPH 536 Health Promotion Program Planning	**3**			
CPH 538 Health Education: Instrumentation & Evaluation	**3**			
CPH 539 Public Health Leadership & Advocacy	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (6 credit hours) (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

****Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Attachment 4

Worksheet for Master of Public Health Degree

Environmental and Occupational Health

Name_____ Academic Advisor_____

UNMC ID# _____

I. Core Requirements (21 credit hours)	Credit	Grade	Quality Pts	Session/Yr
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 505 Applied Research in Public Health	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (12 credit hours)				
CPH 590 Elements of Industrial Safety for Health Sciences	**3**			
CPH 593 Principles of Occupational and Environmental Health	**3**			
CPH 594 Environmental Exposure Assessment	**3**			
CPH 597 Principles of Toxicology	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

***Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Attachment 5

Plan of Study Worksheet for Master of Public Health Degree

Epidemiology

Name_____ Academic Advisor_____

UNMC ID# _____

I. Core Requirements (21 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 505 Applied Research in Public Health	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (12 credit hours)				
CPH 650 Biostatistics II (regression/anova)	**3**			
CPH 621 Epidemiology Advanced Design and Methods	**3**			
CPH 620 Chronic Disease Epidemiology	**3**			
CPH 623 Infectious Disease Epidemiology	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

***Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Attachment 6

Plan of Study Worksheet for Master of Public Health Degree

Public Health Administration Concentration

Name_____ Academic Advisor_____

UNMC ID# _____

I. Core Requirements (21 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 505 Applied Research in Public Health	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (select 12 credit hours from courses listed below)				
CPH 562 Public Human Resource Management	**3**			
CPH 566 Health Care Policy	**3**			
CPH 561 Public Budgeting **OR** CPH 565 Health Care Finance	**3**			
CPH 563 Strategic Planning	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

***Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Attachment 6

Plan of Study Worksheet for Master of Public Health Degree

Community Oriented Primary Care Concentration

Name_____ Academic Advisor_____

UNMC ID#_____

I. Core Requirements (21 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 505 Applied Research in Public Health	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (12 credit hours)				
CPH 551 Community-Orient Primary Care: Principles and Practice	**3**			
CPH 552 Opportunities and Challenges in the Application of COPC	**3**			
CPH 626 Health Information and Surveillance for Public Health Practice	**3**			
CPH 545 Health Disparities and Health Equity	**3**			
Total Concentration Credit Hours	**12**			
***III. Electives (6 credit hours) (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

****Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date

Attachment 7

Plan of Study Worksheet for Master of Public Health Degree

Maternal and Child Health Concentration

Name_____ Academic Advisor_____

UNMC ID#_____

I. Core Requirements (21 credit hours)	**Credit**	**Grade**	**Quality Pts**	**Session/Yr**
CPH 501 Health Behavior	**3**			
CPH 506 Biostatistics I	**3**			
CPH 502 Health Services Administration	**3**			
CPH 504 Introduction to Epidemiology	**3**			
CPH 500 Foundations of Public Health	**3**			
CPH 503 Public Health, Environment & Society	**3**			
CPH 505 Applied Research in Public Health	**3**			
Total Core Credit Hours	**21**			
II. Concentration Courses (12 credit hours)				
CPH 546 Introduction to MCH	**3**			
CPH 547 Advanced MCH	**3**			
CPH 548 Child and Adolescent Growth and Development	**2**			
CPH 549 Women's Health	**2**			
CPH 627 Epidemiological Measurements and Research in MCH	**2**			
Total Concentration Credit Hours	**12**			
***III. Electives (6 credit hours) (with specific academic advisor approval select 6 credit hours from any University of Nebraska approved courses)**				
(list)				
(list)				
Total Elective Credit Hours	**6**			
IV. Service Learning/Capstone Experience (6 credit hours)				
CPH 528 Service Learning	**3**			
CPH 529 Capstone Project	**3**			
Total Capstone Experience Credit Hours	**6**			
Total MPH Program Credit Hours	**45**			

****Students admitted prior to Spring 2010 are subject to the 42 total credit hour program and completion of only 3 credit hours of elective course work.**

Contract

The above course requirements have been explained to me by my academic advisor. I understand these requirements.

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Student's signature date Academic Advisor's signature date