

BOARD OF HIGHER EDUCATION

REQUEST FOR COMMITTEE AND BOARD ACTION

COMMITTEE: Academic Affairs

NO: AAC 14-21

COMMITTEE DATE: January 21, 2014

BOARD DATE: January 28, 2014

APPLICATION OF UNIVERSITY OF MASSACHUSETTS LOWELL TO AWARD THE BACHELOR OF SCIENCE IN PUBLIC HEALTH AND MASTER OF PUBLIC HEALTH

MOVED: The Board of Higher Education hereby approves the application of **the University of Massachusetts Lowell** to award the **Bachelor of Science in Public Health and Master of Public Health**.

Upon graduating the first class for these programs, the University shall submit to the Board a status report addressing its success in reaching program goals as stated in the application and in the areas of enrollment, curriculum, faculty resources, and program effectiveness.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b)

Contact: Carlos Santiago, Senior Deputy Commissioner for Academic Affairs and Academic Policy

BOARD OF HIGHER EDUCATION

January 2014

University of Massachusetts Lowell Bachelor of Science in Public Health Masters of Public Health

INTENT AND MISSION

The purpose of the proposed Bachelor of Science (BS) program in Public Health is to prepare graduates to carry out public health role functions in private industry, local communities, and state and national settings, and to prepare graduates with the foundation of knowledge that is necessary to pursue graduate studies in public health and health sciences. The purpose of the proposed Masters of Public Health (MPH) program is to prepare graduates to promote the health of individuals, communities, and the world through synthesis of research, application of best practices, and advocacy for policies that address public health challenges.

The proposed program has obtained all necessary governance approvals on campus and was approved by the University of Massachusetts' Board of Trustees on December 11, 2013. The required letter of intent was circulated on September 24, 2013. No comments were received.

NEED AND DEMAND

National and State Labor Market Outlook

In 2008, the Association of Schools of Public Health (ASPH) released an assessment, which found that more than 250,000 additional public health workers are needed by 2020. It is projected that between 2000 and 2050, the number of older people living in the US will increase by 135%. The population aged 85 and over, which is the group most likely to need health and long-term care services, is projected to increase by 350%. According to the 2008 ASPH analysis, schools of public health will have to graduate three times as many public health workers by 2020 in order to meet national healthcare needs. ASPH called for increased investment in public health education and training and expanded academic opportunities as among the most urgent needs for responding to these projections. The retirement of senior public health workers is contributing to the need for more public health workers, with about 25% of governmental health workers expected to retire between 2008 and 2012.

Employment data provided by the Massachusetts Executive Office of Labor and Workforce Development shows that employment for public health-related occupations within Massachusetts is expected to grow from 24,436 in 2010 to 30,588 in 2020, an increase of 25.2 percent. This rate is expected to significantly outpace the average growth for all occupations within both the Massachusetts's economy (15.6%) and the national economy (14.3%). Aggregate data compiled from each New England state's department of labor shows positive public health employment projections for the New England region. Within New England, occupational growth for public health related professions is projected to be 20%, increasing from 51,134 in 2010 to 61,365 in 2020 (DOL, 2010).

Student Demand

Student demand for health programs at UML was reported to be rising over the past 10 years, with enrollment increasing 35% over the past 5 years. Capacity limits for most UML health professions programs, precludes admission for qualified students each year. There were reported to be 3-4 applicants for every available seat in nursing and exercise physiology. UML also reported many students who want a generic health curriculum that will offer them flexibility in their future career. Currently, UML does not offer such a program and the BS in Public Health would fill this demand. It is anticipated that the BS in Public Health will attract students from community colleges. UML has experienced interest from community college partners for developing articulation agreements once the BHE approval is obtained. The BS in Public Health would also offer a pathway for students who are interested in nursing or other health-related graduate programs to directly enter a program at the MS level including the proposed MPH degree. At the graduate level, UML reports regular inquires about an MPH program from current and prospective students. UML holds that the MPH degree is well accepted in all health fields and is in increasing demand.

OVERVIEW OF PROPOSED PROGRAM

Duplication

The University of Massachusetts Amherst public health sciences undergraduate major was approved by the Board of Education in 2007 has rapidly grown to over 450 students and is currently the only accredited School of Public Health in Massachusetts offering an undergraduate program. Other programs such as Harvard, Tufts, and Boston University, the University of Massachusetts Medical School and Northeastern, offer only graduate degrees. UML asserts that it is in an excellent location to provide access to a reasonably priced undergraduate public health education in eastern Massachusetts.

ACADEMIC AND RELATED MATTERS

Admission

Admission requirements for the BS in Public Health are a high school diploma, overall GPA of 2.5 or better, high school grades of B or better, completion of high school program that focuses on college prep courses including English, biology, and chemistry. It is strongly recommended that incoming freshman take math through pre-calculus or calculus and complete high school physics. In addition admission requirements include a combined SAT score totaling at least 1000. Applicants must be able to meet the technical standards of the college and the program (available on the college's web site) in order to actively participate in all phases of class, practicum and laboratory work, with or without reasonable accommodations.

Admission requirements for the MPH in Public Health are a BA or BS degree, or senior-year status, with an overall GPA of at least 3.0., grades of C or better in required, prerequisite courses including a minimum of one semester of college-level mathematics, general chemistry, organic chemistry, biology and physics. Applicants who are missing prerequisites may be admitted with the provision that they meet with their advisor before or during their first semester and develop a plan of study to complete the prerequisites

during the first year. Other requirements include a GRE score or a prior graduate degree. International applicants must submit a TOEFL score of at least 79.

Program Enrollment Projection

UNDERGRADUATE STUDENTS

Students	Year 1 2014-15	Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19
B.S. – New Full Time	30	60	80	90	100
B.S. – Continuing Full Time	--	27	76	135	193
B.S. – New Part Time	15	25	30	30	30
B.S. – Continuing Part Time	--	14	34	55	73
Undergraduate Subtotals	45	126	220	310	396

GRADUATE STUDENTS

Students	Year 1 2014-15	Year 2 2015-16	Year 3 2016-17	Year 4 2017-18	Year 5 2018-19
MPH – New Full Time	15	20	25	30	30
MPH – Continuing Full Time	--	14	18	23	27
MPH – New Part Time	15	25	30	35	40
MPH – Continuing Part Time	--	14	23	27	32
Graduate Subtotals	30	72	96	115	129
Total Students	75	199	316	425	515

Curriculum (Attachment A)

The proposed BS curriculum will consist of 120 credits of coursework designed to allow full time students to complete in 4 years. UML courses that are already offered in related programs will provide core and elective courses for the Public Health program. There is a set of General Education requirements for undergraduate degrees established by the University which totals 47 credits. Additionally there are specific requirements for the major that comprise the public health core curriculum. The core is 22 credits and provides foundational knowledge of public health, which is designed around program goals and fulfilling requirements for accreditation. The accreditation required practicum is completed in the senior year.

The proposed MPH curriculum will consist of 42 credits of coursework designed to allow full-time students to graduate in 2 years. The core includes 15 credits plus the 6-credit MPH practicum in the second year. The Global Environmental Sustainability and Health specialization requires 5 courses plus 2 electives. All MPH students will take five core public health courses plus a 2-semester 6-credit MPH practicum.

Field Resources and Internships

Students in the proposed BS program will be required to complete a practicum, co-op or a research project in their senior year. The practicum experiences will be designed to

prepare students for planning, delivery and evaluation of health programs in a selected area of concentration. The faculty will work closely with students to determine the appropriate setting for the practicum experience. Practicum experiences are assigned in settings that commonly employ health educators, including community health programs, school health sites, health and fitness sites, hospitals and community health centers, environmental health programs, and health-care management organizations.

Organizations serving as sites for internships in other programs are expected to host students in the proposed program. These sites have included, Massachusetts General Hospital, Lowell General Hospital, D'Youville Senior Care Center, Lowell Community Health Center, Greater Lawrence Family Health Center, YMCA of Greater Lawrence, and the Northeast Division of the Department of Health and Human Services. Students enrolled in the Health Sciences option will engage in a research project or co-op experience relevant to their area of interest. The design of the research experience will be modeled after the current offerings in the Clinical Laboratory and Nutritional Sciences Department, Directed Study in Nutrition and Senior Research in Nutrition and will be expanded to co-op experience in public health and industry settings.

Service Learning, which is already a component of courses offered in the Department of Community Health and Sustainability, will allow students to learn about public health by participating in community-based health promotion projects. Students work side-by-side with health educators in the community learning about the practice of public health. This is combined with classroom learning, whereby students reflect on the experiences and connect them to the academic theories, philosophies, and practice. Service Learning sites have included Girls Inc., UMass Lowell Health Services, Healthcare For All, Coalition for a Better Acre, and Lowell Community Health Center.

All MPH students will be required to complete a practicum, co-op or capstone project. These practicum experiences will be designed to prepare students for planning, delivery and evaluation of health programs in a selected area of concentration. The faculty will work closely with students to determine the appropriate setting for the practicum experience.

RESOURCES AND BUDGET

Fiscal (Attachment B)

The revenue for tuition and fees is based on the official table of Fees and Tuition expenses per semester/per credit hour maintained in the UML Bursar's Office. It is anticipated that the majority of students will be in-state residents with ~10% non-residents or international students. It is expected that faculty will generate extraneous funds to support their research activities and this is not included in the budget.

Costs

The proposed programs will build on faculty in the Departments of Community Health and Sustainability and Work Environment. Additional teaching requirements will be covered by adjunct faculty and teaching assistants (TA). TA positions are planned to include a stipend and tuition remission. It is expected that TAs will work on research dissertations in faculty labs. The Public Health program does not include a doctoral program and TAs will be recruited from allied fields such as Work Environment.

It is planned that 2 new faculty will be added in year 3 and 5. In Year 1 it is planned that the Director of the Public Health program will be hired for early development of the program as well as supporting research activities, financial guidance, marketing and recruiting of graduate students. In Year 2 one administrative staff will be hired to support the program.

The operating budget will cover expenses such as office supplies, small equipment, laboratory expenses, travel, events and marketing. It also includes funds for advertising and travel for faculty candidates. This will remain as an annual budget item. Budget projections do not include unknowns such as increases in cost of living, tuition and fees, salaries, and other operating expenses.

It is expected that Public Health faculty will require start-up funds to launch the programs' research agenda and to develop external funding sources. Faculty will be expected to bring in funding to support research activities and will be provided an average of \$75K for research start-up. Tenure will be partially dependent on funding success. The proposed programs expect to utilize existing faculty for the majority of teaching in the program.

Faculty and Administration (Attachment C)

UML has a wealth of faculty from a variety of disciplines with expertise related to Public Health. Twenty-six full-time faculty members from all departments in the College of Health Sciences have expressed interest in teaching courses, mentoring students and serving on committees. It is planned that they will continue to teach in their department and teach in the interdisciplinary Public Health program, also serving to advise and mentor students. The diversity of disciplines represented by faculty who have expressed interest will enhance the interdisciplinary nature of the Public Health program and fit well with the administrative group model. The Group model enables the additional participation of appropriately qualified and interested faculty from other departments at UML, from other UMass campuses, and from state universities. Administrative staff currently assigned to the College of Health Sciences will contribute to the implementation of the new degree programs in the first year that classes are taught. Additional administrative staff will be added as the programs grow.

Facilities, Library and Information Technologies

The UML proposed program plan a trans-disciplinary approach to resources to draw on the research and scholarship of a wide range of disciplines and the UML library can provide this. Existing library support for academic activities includes undergraduate through doctoral level programs and it is expected that the library research needs of the proposed programs in public health will be served by this significant resource. UML makes a two million dollar annual investment in library subscriptions which provides access to major research databases.

UML subscribes to the CINAHL database for nursing and allied health, the full Ovid journal collection in the health sciences, proprietary access to MEDLINE/PubMed, and the Taylor & Francis collection in bioscience and health. The library also subscribes to the general coverage Health & Wellness Resources Center and the Health Reference Center databases, as well as the American Medical Association journals, the American Cancer Society journals, NEJM Online, and the Cochrane Library. For clinical lab

sciences, UML subscribes to the full American Chemical Society resources, SciFinder Scholar plus the full journal collection, the Biological Sciences Collection, ChemNetBase, the Merck Index online, the Kirk-Othmer Encyclopedia of Chemical Technology online, full coverage in physics and math, and journals published by the Nature and Science groups. For transdisciplinary access, the leading index and journal package is ScienceDirect from Elsevier. UML also subscribes to full journal bundles from Wiley, Springer, Taylor & Francis, Sage, JStor, Emerald and Oxford. The library subscribes to the full set of Annual Reviews online, including those in Pharmacology and Toxicology, Public Health, Chemical and Biomolecular Engineering, and Biochemistry; as well as the database of the AARP, Ageline. The subscription to Dissertations Online opens a window into prior graduate work, and for legal aspects of public health Lexis/Nexis provides access to statutes, cases, regulations and law journals. UML is a full member in the Boston Library Consortium as well as the WorldCat network, providing guaranteed interlibrary loan access to virtually any book or journal article that can be identified. The WorldCat database, for example, links to a very accessible collection (via expedited interlibrary loan) of over 15 million book titles.

All academic buildings, residence halls and high-traffic common areas at UML have wireless access. Currently, 100% of the dedicated teaching spaces on campus are technologically-enhanced classrooms and lecture-capture equipment is available in heavily utilized classrooms. Faculty and students have access to campus-wide software licenses for conducting data analysis. The Help Center provides support for 6,500 computers and is used by faculty, students, and staff. The Help Center also is responsible for the Computer Replenishment Program, an initiative to replace 25% of primary faculty/staff and lab computers on campus every year. The Office of Information Technology, in collaboration with the Office of the Provost, offers faculty development workshops on web-enhanced teaching, technology-enhanced classrooms, lecture-capture technologies, and using the SMART Podium. The Office of Online and Continuing Education provides training programs for faculty in the use of Blackboard Learn in web-enhanced and online courses.

The College of Health Sciences maintains two computer labs with teaching stations for a total of 41 computers for student use. One lab consists of 17 iMac computers configured for both the Mac and Windows operating systems, which gives users the option to pick which they feel more comfortable using. The second lab has 24 Windows-based computer systems. All computer systems are equipped with university-licensed software such as Microsoft Windows, Microsoft Office, Adobe Acrobat and IBM SPSS. They also have department-specific software targeted to the specific majors in the College. There are three computers in the Resource Center that are used for studying/tutoring. These computers have basic university software plus internet access.

Science laboratory space is located in Weed Hall, the primary building housing the College of Health Sciences. The Human Assessment Laboratory provides human health assessment resources for students and faculty in the College of Health Sciences. The Industrial Hygiene Laboratory is an instructional and research laboratory used to focus on exposure assessment, sampling and analysis of air contaminants. Extensive air sampling equipment including personal sampling pumps, direct reading particulate, gas and vapor monitors, and microbial air samplers are housed here. The Aerosol Science Laboratory is equipped with an aerosol generation system to test aerosol measurement and control equipment. The lab also contains ventilation evaluation equipment and is used to teach ventilation design and evaluation methods. The Toxic Use Reduction

Institute Exposure Biology Laboratory tests the effectiveness of greener cleaning chemicals and related equipment on a variety of substrates and soils.

The College of Health Sciences supports three Research Centers that will provide resources for Public Health students. The Center for the Promotion of Health in the New England Workplace studies the feasibility, effectiveness, and economic benefits of integrating occupational health and safety with health promotion interventions to improve employee health. The Lowell Center for Sustainable Production aims to redefine environmentalism and occupational health and safety while demonstrating how these concepts are compatible with new systems of production and consumption that are healthy for workers, environmentally sound, economically viable, and socially accountable. The Toxics Use Reduction Institute collaborates with businesses, community organizations and government agencies to reduce the use of toxic chemicals, protect public health and the environment, and increase competitiveness of Massachusetts businesses. TURI works in the areas of community education, professional training, grants, research, and policy development.

Affiliations and Partnerships

Academic programs in the College of Health Sciences have advisory boards that provide advice and counsel to the faculty who administer the programs. The advisory board for the proposed program will meet 1-2 times per year and be composed of industry partners relevant to the program. As part of the review process prior to submission of the Public Health program proposal, UML consulted with the existing college and departmental advisory boards which are related to Public Health to gain their input. The board members were reported to be very supportive of the proposed degrees. UML anticipates that several members of the current advisory boards will be invited to serve on the Public Health Advisory Board once the degrees are approved by BHE. The advisory board will consist of representatives from the community with members from community health centers and community hospitals serving the region as well as community agencies serving the health care needs of a diverse population. Representatives from agencies serving environmental and occupational health needs in the region will also be invited on to the new Advisory.

Program Effectiveness

Goal	Measurable Objective	Strategy for Achievement	Timetable	Assessment
1. Produce high quality graduates in Public Health. Prepare students to enter the public health workforce with relevant public health and health promotion knowledge, competencies, and skills.				
	Recruit high quality and diverse applicants consistent with target timeline, from a regional, national, and international applicant pool.	<ul style="list-style-type: none"> ● Market BS/MPH to colleges and companies. ● Announce BS/MPH in academic newsletters and professional meetings. ● Develop a strong web presence. ● Advertise to alumni. ● Recruit at local, national, and international partner institutions. 	Market 3 to 9 months before program launch, then ongoing.	Perform trend analysis of student profiles.
	Retain and graduate high quality students within projected timelines (four years for BS degree and two years for MPH degree). Set an 80-90% target retention rate for first-year enrollees, and an 80-95% target graduation rate by year 5 for BS students and a 75% target graduate rate by year 3 for full-time MPH students.	<ul style="list-style-type: none"> ● Recruit high-quality applicants matched to program strength. ● Provide routine high quality faculty advising. ● Continually monitor student progress. ● Manage course offerings. ● Manage faculty/staff support. 	Ongoing.	Track time to graduation and perform trend analysis.

	Facilitate employment of graduates in quality positions in industry, community, academic, research, or other private-employment positions. Target 85% rate of job placement in public health or enrollment in graduate school within 1 year of BS graduation. Target 90% employment of MPH graduates within 1 year.	<ul style="list-style-type: none"> • Produce high-quality graduates with superior skill sets. • Create formal partnerships with potential employers to enhance our students having a “track” on possible jobs. • Partner with non-governmental organizations, international organizations and governments to facilitate student experiences. • Leverage UMass Lowell international university partnerships. • Support student career networking. • Hold annual career fair. • Support student chapter of public health organizations. • Support professional conference participation. 	Ongoing.	Track salaries, placements, and time to employment; perform trend analysis.
2. Advance field of public health. Provide leadership and service to enhance public health practice at the local, state, national and international levels.				
	Improve public health practices in state and region.	<ul style="list-style-type: none"> • Promote public health standards of practice. 	Ongoing.	Assess basic public health practices every 3 years.
	Increase research focus in public health workplace.	<ul style="list-style-type: none"> • Train students in strategies to diffuse innovations. • Encourage joint research with practice sites. 	Ongoing.	Assess research activities in practice sites.
	Advance research through refereed journal publications.	<ul style="list-style-type: none"> • Support research activities. • Continue to recruit research-oriented faculty. 	Ongoing.	Track quality and quantity of faculty and student publications; perform trend analysis.

	Increase grant generation (applicable to MPH program only).	<ul style="list-style-type: none"> • Identify and support grant-writing opportunities. • Develop joint proposals. 	Ongoing.	Track annual grant proposals, grant acceptances, and research expenditures; perform trend analysis.
3. Increase visibility of UMass Lowell. Ensure that the faculty demonstrate appropriate expertise through their public health knowledge, academic performance, and public health experience and research interests.				
	Generate more faculty representation in the local press related to public health topics.	<ul style="list-style-type: none"> • Publicize faculty representation in press. • Proactively advertise faculty strengths to local press. 	Ongoing.	Track local publications involving faculty.
	Increase and elevate faculty participation at public health conferences.	<ul style="list-style-type: none"> • Support professional travel to conferences. 	Ongoing.	Track faculty activities at conferences, including keynote invitations and presentations.

EXTERNAL REVIEW AND INSTITUTIONAL RESPONSE

A one day site visit and a paper review of the proposed programs were conducted by Sylvia E. Furner, MPH, PhD, Associate Professor Emerita, University of Illinois at Chicago and Sarah Bauerle Bass, PhD, MPH, Associate Professor of Public Health, Undergraduate Program Director, Temple University.

The reviewers found a comprehensive and responsive proposal for the development of BS and MPH programs and remarked that the faculty and staff are clearly committed to its success. They also suggested that the proposed programs add value to UML and to the overall public health education community. They commented that faculty from multiple disciplines indicated a hallmark of an excellent public health program. The review indicated that the large numbers of international partnerships that exist at UML include many faculty members who will be affiliated with the proposed MPH program and this bodes well for its stature. Both Dr. Bass and Dr. Furner commented that the curriculum of the MPH program met the requirements of the CEPH for accreditation. Dr. Bass reported that the MPH program is poised to pursue accreditation and is rigorous and consistent with other accredited programs.

Recommendations included improving the consistency between course titles in the proposal and course titles on the syllabi and that perhaps course titles should be reviewed to better reflect the programs global emphasis. Reviewers also suggested that the need to develop professional competencies for the curriculum prior to seeking CEPH accreditation may be a challenge as the nature of this MPH specialization, means competencies may not be available for faculty to use as guides. It was also recommended that health behavior theory content should be increased in both the BS

and MPH programs. The health informatics course in the health promotion BS option was recommended to be repurposed as a health communications course. Further recommendations included increasing admission standards to include 3 letters of recommendation and heightened minimum GRE scores. There was concern regarding the admission requirement to the BS program that states students must demonstrate good health.

UML responded that the Steering Committee of the MPH program will review the course titles, the listing of courses in the proposal and the global content of the courses in the MPH program and will rename courses to reflect global content as appropriate. On approval of the MPH program, the new names of the courses will be posted in the schedule of classes on the MPH web site and in the Registrar's office. Regarding the development of competencies UML asserted that many public health faculty members have developed competencies as part of their professional accreditations in other disciplines, and there is confidence that the interdisciplinary faculty of the MPH program have the experience to develop competencies, objectives and measures in preparation for accreditation requirements. UML agreed to review and revise the courses to enhance the health behavior content per accreditation guidelines, and to consider repurposing the health informatics once program approval of the BS and MPH is obtained.

UML responded in agreement that reference letters are a standard requirement for all graduate level applicants and that this will be clarified on the public health web site. UML adjusted the BS program's health admission standard by changing the vernacular to align with the same requirements as all students seeking admission to the College of Health Sciences.

STAFF ANALYSIS AND RECOMMENDATION

Staff thoroughly reviewed all documentation submitted by **University of Massachusetts Lowell** and external reviewers. Staff recommendation is for approval of the proposed **Bachelor of Science in Public Health** and the **Master of Public Health** program.

ATTACHMENT A: CURRICULUM OUTLINE

Bachelors of Science in Public Health Option in Community Health/Health Promotion

Major Required (Core) Courses (# Total courses required = 8)		
Course Number	Course Title	Credit Hours
PUBH.101	Public Health Seminar	1
PUBH.201	Health Policy	3
19.301	Clinical Research Methods	3
30.222	Health & Disease Across the Lifespan	3
31.206	Research Methods in Public Health	3
31.305	Introduction to Epidemiology	3
31.313	Principles of Environmental Health	3
31.321	Healthcare Systems	3
	Sub Total Core Credits	22
Other Required Courses in Related Subject Areas (# Total courses required = 11)		
Course Number	Course Title	Credit Hours
31.204	Introduction to Health Promotion	3
31.203	Technology in Public Health	3
31.301	Program Planning in Health Promotion	3
31.303	Social Determinants of Health	3
31.304	Politics of Health	3
31.306	Socio-Ecological Health Assessment	3
31.302	Applied Technology in Health Promotion	3
31.405	Communication Techniques in Health Promotion	3
31.409	Service Learning Seminar	3
31.414	Program Management – Health Promotion	3
31.416	Community Health Practicum	6
	Sub Total Related Credits	36
Elective Courses (# Total courses required = 5)		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
xx.xxx	Elective	3

xx.xxx	Elective	3
	Sub Total Elective Credits	15
Distribution of General Education Requirements		# of Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages (3 courses): 42.222 – Oral Communication (3 credits) elective (3 credits) elective (3 credits)		9
Mathematics (1 course): 92.283 - Introduction to Statistics		3
Science and Technology (5 courses): 35.101/103 – Anatomy & Physiology I with lab (4 credits total) 35.102/104 – Anatomy & Physiology II with lab (4 credits total) 35.251/253 – Physiological Chemistry I with lab (4 credits total) 35.252/254 – Physiological Chemistry II with lab (4 credits total) 35.211/213 – Basic Clinical Microbiology & Pathology with lab (4 credits total)		20
Social Sciences (3 courses): 30.102 – Introduction to Public Health (3 credits) 30.308 – Global Health (3 credits) elective (3 credits)		9
Writing (2 courses): 42.101 – College Writing I (3 credits) 42.102 – College Writing II (3 credits)		6
Sub Total General Education Credits		47
Curriculum Summary		
Total number of courses required for the degree		38
Total credit hours required for degree		120
Prerequisite or Other Additional Requirements:		

Undergraduate Program Curriculum Outline

Bachelor of Science in Public Health
Option in Environmental/Occupational Health

Major Required (Core) Courses (# Total courses required = 8)		
Course Number	Course Title	Credit Hours
PUBH.101	Public Health Seminar	1
PUBH.221	Health Policy	3
19.301	Clinical Research Methods	3
30.222	Health & Disease Across the Lifespan	3
31.206	Research Methods in Public Health	3
31.305	Introduction to Epidemiology	3
31.313	Principles of Environmental Health	3
31.321	Healthcare Systems	3
	<i>Sub Total Core Credits</i>	22
Other Required Courses in Related Subject Areas (# Total courses required = 13)		
Course Number	Course Title	Credit Hours
PUBH.331	Occupational Health and Safety I	3
PUBH.332/333	Occupational Health and Safety II with lab	4
PUBH.310	Communicable Diseases and Environmental Health	3
PUBH.311	Toxicology for Environmental Health	3
PUBH.410	Water, Sanitation and Public Health with lab	4
31.370	Food Safety and Agriculture	3
31.371	Chemicals and Health	3
31.417	Climate Change: Science, Communication, and Solutions	4
36.341	Organic Reactions and Structure with lab	4
41.367	Environmental Law	3
95.103	General Physics I with lab	4
31.316	Environmental Health in Practice – Sampling and Analysis	3
31.410	Environmental Health Practicum	7
	<i>Sub Total Related Credits</i>	48
Elective Courses (# Total courses required = 1)		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
xx.xxx	Elective	3
	<i>Sub Total Elective Credits</i>	3

Distribution of General Education Requirements		# of Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages (3 courses): 42.222 – Oral Communication (3 credits) elective (3 credits) elective (3 credits)		9
Mathematics (1 course): 92.283 Introduction to Statistics		3
Science and Technology (5 courses): 35.101/103 – Anatomy & Physiology I with lab (4 credits total) 35.102/104 – Anatomy & Physiology II with lab (4 credits total) 35.251/253 – Physiological Chemistry I with lab (4 credits total) 35.252/254 – Physiological Chemistry II with lab (4 credits total) 35.211/213 – Basic Clinical Microbiology & Pathology with lab (4 credits total)		20
Social Sciences (3 courses): 30.102 – Introduction to Public Health (3 credits) 30.308 – Global Health (3 credits) elective (3 credits)		9
Writing (2 courses): 42.101 – College Writing I (3 credits) 42.102 – College Writing II (3 credits)		6
Sub Total General Education Credits		47
Curriculum Summary		
Total number of courses required for the degree	36	
Total credit hours required for degree	120	
Prerequisite or Other Additional Requirements:		

Undergraduate Program Curriculum Outline

Bachelor of Science in Public Health
Option in Health Sciences

Major Required (Core) Courses (# Total courses required = 8)		
Course Number	Course Title	Credit Hours
PUBH.101	Public Health Seminar	1
PUBH.221	Health Policy	3
19.301	Clinical Research Methods	3
30.222	Health & Disease Across the Lifespan	3
31.206	Research Methods in Public Health	3
31.305	Introduction to Epidemiology	3
31.313	Principles of Environmental Health	3
31.321	Healthcare Systems	3
	Sub Total Core Credits	22
Other Required Courses in Related Subject Areas (# Total courses required = 5)		
Course Number	Course Title	Credit Hours
PUBH.440/441	Health Sciences Research I and II	5
30.104	Topics in Health	3
35.206	Human Nutrition	3
35.435	Medical & Clinical Genetics	3
36.350	Human Biochemistry	3
	Sub Total Related Credits	17
Elective Courses (# Total courses required = 11)		
Course Number	Course Title	Credit Hours
xx.xxx	Health Sciences elective with lab	4
xx.xxx	Health Sciences elective (choose from list below)	3
xx.xxx	Health Sciences elective (choose from list below)	3
xx.xxx	Health Sciences elective (choose from list below)	3
xx.xxx	free elective	3

xx.xxx	free elective	3
	Sub Total Elective Credits	34
Distribution of General Education Requirements		# of Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages (3 courses): 42.222 – Oral Communication (3 credits) 47.101 – General Psychology (3 credits) 48.101 – Introduction to Sociology (3 credits)		9
Mathematics (1 course): 92.283 Introduction to Statistics		3
Science and Technology (5 courses): 35.101/103 – Anatomy & Physiology I with lab (4 credits total) 35.102/104 – Anatomy & Physiology II with lab (4 credits total) 35.251/253 – Physiological Chemistry I with lab (4 credits total) 35.252/254 – Physiological Chemistry II with lab (4 credits total) 35.211/213 – Basic Clinical Microbiology & Pathology with lab (4 credits total)		20
Social Sciences (3 courses): 30.102 – Introduction to Public Health (3 credits) 30.345 – Global Health (3 credits) xx.xxx - elective (3 credits)		9
Writing (2 courses): 42.101 – College Writing I (3 credits) 42.102 – College Writing II (3 credits)		6
Sub Total General Education Credits		47
Curriculum Summary		
Total number of courses required for the degree		38
Total credit hours required for degree		120
Prerequisite or Other Additional Requirements:		

Graduate Program Curriculum Outline

Masters in Public Health
Option in Global Environmental Sustainability and Health

Major Required (Core) Courses (Total courses required = 7)		
Course Number	Course Title	Credit Hours
PUBH.501	Social & Behavioral Determinants of Health	3
PUBH.601	Health Policy & Management	3
19.506	Introduction to Environmental Health	3
19.575	Introduction to Epidemiology	3
19.577	Biostatistics for Health Data	3
19.600	MPH Practicum/Capstone	3
19.601	MPH Practicum/Capstone	3
	SubTotal # Core Credits Required	21
Concentration Course Choices (Total courses required = 5) (attach list as needed)		
PUBH.602	Sustainability Assessment Tools	3
PUBH.603	Global Development & Health	3
19.503	Environmental Biology/Toxicology	3
19.651	Environmental & Occupational Health Policy	3
19.659	Cleaner Production & Toxics Use Reduction	3
	SubTotal # Concentration Credits Required	15
Other/Elective Course Choices (Total courses required = 2) (attach list as needed)		
PUBH.604	Geographic Information Systems (GIS) for Health	3
19.520/31.417	Climate Change	3
19.533	Intervention Research	3
19.549	Sustainable Housing Development & Land Use	3
	SubTotal # Elective Credits Required	6
Curriculum Summary		
Total number of courses required for the degree		14
Total credit hours required for degree		42
Prerequisite or Other Additional Requirements:		

ATTACHMENT B: BUDGET

REVENUE ESTIMATES										
Undergraduate Program: BS-PH										
	Year 1		Year 2		Year 3		Year 4		Year 5	
	2014		2015		2016		2017		2018	
<i>Full-Time Tuition Rate: In-State</i>	\$1,454		\$1,454		\$1,454		\$1,454		\$1,454	
<i>Full-Time Tuition Rate: Out-State</i>	\$8,567		\$8,567		\$8,567		\$8,567		\$8,567	
<i>Mandatory Fees per Student (In-state)</i>	\$10,218		\$10,218		\$10,218		\$10,218		\$10,218	
<i>Mandatory Fees per Student (out-state)</i>	\$17,154		\$17,154		\$17,154		\$17,154		\$17,154	
<i>FTE # of New Students: In-State</i>	35		65		88		100		105	
<i>FTE # of New Students: Out-State</i>	3		7		8		10		12	
<i># of In-State FTE Students transferring in from the institution's existing programs</i>		10		10		10		10		10
<i># of Out-State FTE Students transferring in from the institution's existing programs</i>		1		1		1		1		1
Tuition and Fees	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs
First Year Students										
Tuition										
In-State	\$50,890	\$14,540	\$94,510	\$14,540	\$127,952	\$14,540	\$145,400	\$14,540	\$152,670	\$14,540
Out-of-State	\$25,701	\$8,567	\$59,969	\$8,567	\$68,536	\$8,567	\$85,670	\$8,567	\$102,804	\$8,567
Mandatory Fees	\$409,092	\$119,334	\$784,248	\$119,334	\$1,036,416	\$119,334	\$1,193,340	\$119,334	\$1,278,738	\$119,334
Second Year Students										
Tuition										
In-State			\$50,890	\$14,540	\$94,510	\$14,540	\$127,952	\$14,540	\$145,400	\$14,540
Out-of-State			\$25,701	\$8,567	\$59,969	\$8,567	\$68,536	\$8,567	\$85,670	\$8,567
Mandatory Fees			\$409,092	\$119,334	\$784,248	\$119,334	\$1,036,416	\$119,334	\$1,193,340	\$119,334

Third Year Students										
Tuition										
In-State					\$50,890	\$14,540	\$94,510	\$14,540	\$127,952	\$14,540
Out-of-State					\$25,701	\$85,670	\$59,969	\$85,670	\$68,536	\$0
Mandatory Fees					\$409,092	\$119,334	\$784,248	\$119,334	\$1,036,416	\$119,334
Fourth Year Students										
Tuition										
In-State							\$50,890	\$14,540	\$94,510	\$14,540
Out-of-State							\$25,701	\$8,567	\$59,969	\$8,567
Mandatory Fees							\$409,092	\$119,334	\$784,248	\$119,334
Fifth Year Students										
Tuition										
In-State									\$50,890	\$14,540
Out-of-State									\$25,701	\$8,567
Mandatory Fees									\$409,092	\$119,334
Gross Tuition and Fees: BS in PH	\$485,683	\$142,441	\$1,424,410	\$284,882	\$2,657,314	\$504,426	\$4,081,724	\$646,867	\$4,191,526	\$703,638

REVENUE ESTIMATES										
Graduate Program: MPH										
	Year 1		Year 2		Year 3		Year 4		Year 5	
	2014		2015		2016		2017		2018	
<i>Full-Time Tuition Rate: In-State</i>	\$1,637		\$1,637		\$1,637		\$1,637		\$1,637	
<i>Full-Time Tuition Rate: Out-State</i>	\$6,425		\$6,425		\$6,425		\$6,425		\$6,425	
<i>Mandatory Fees per Student (In-state)</i>	\$9,977		\$9,977		\$9,977		\$9,977		\$9,977	
<i>Mandatory Fees per Student (out-state)</i>	\$15,024		\$15,024		\$15,024		\$15,024		\$15,024	
<i>FTE # of New Students: In-State</i>	17		25		30		35		35	
<i>FTE # of New Students: Out-State</i>	3		5		5		5		5	
<i># of In-State FTE Students transferring in from the institution's existing programs</i>	0		0		0		0		0	
<i># of Out-State FTE Students transferring in from the institution's existing programs</i>	0		0		0		0		0	
Tuition and Fees	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs
<u>First Year Students</u>										
Tuition										
In-State	\$27,829	\$0	\$40,925	\$0	\$49,110	\$0	\$57,295	\$0	\$57,295	\$0
Out-of-State	\$19,275	\$0	\$32,125	\$0	\$32,125	\$0	\$32,125	\$0	\$32,125	\$0
Mandatory Fees	\$214,681	\$0	\$324,545	\$0	\$374,430	\$0	\$424,315	\$0	\$424,315	\$0
<u>Second Year Students</u>										
Tuition										
In-State			\$27,829	\$0	\$40,925	\$0	\$49,110	\$0	\$57,295	\$0
Out-of-State			\$19,275	\$0	\$32,125	\$0	\$32,125	\$0	\$32,125	\$0
Mandatory Fees			\$214,681	\$0	\$324,545	\$0	\$374,430	\$0	\$424,315	\$0
<u>Third Year Students</u>										

Tuition										
In-State					\$27,829	\$0	\$40,925	\$0	\$49,110	\$0
Out-of-State					\$19,275	\$0	\$32,125	\$0	\$32,125	\$0
Mandatory Fees					\$214,681	\$0	\$324,545	\$0	\$374,430	\$0
<u>Fourth Year Students</u>										
Tuition										
In-State							\$27,829	\$0	\$40,925	\$0
Out-of-State							\$19,275	\$0	\$32,125	\$0
Mandatory Fees							\$47,104	\$0	\$324,545	\$0
<u>Fifth Year Students</u>										
Tuition										
In-State									\$27,829	\$0
Out-of-State									\$19,275	\$0
Mandatory Fees									\$214,681	\$0
Gross Tuition and Fees: MPH	\$261,785	\$0	\$659,380	\$0	\$1,115,045	\$0	\$1,461,203	\$0	\$1,483,135	\$0

REVENUE ESTIMATES										
Total BS and: MPH										
	Year 1		Year 2		Year 3		Year 4		Year 5	
	2014		2015		2016		2017		2018	
	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs	Newly Generated Revenue	Revenue from existing programs
Tuition and Fees										
Gross Tuition and Fees: BS in PH	\$485,683	\$142,441	\$1,424,410	\$284,882	\$2,657,314	\$504,426	\$4,081,724	\$646,867	\$4,191,526	\$703,638
Gross Tuition and Fees: MPH	\$261,785	\$0	\$659,380	\$0	\$1,115,045	\$0	\$1,461,203	\$0	\$1,483,135	\$0
Gross Tuition and Fees: Total	\$747,468	\$142,441	\$2,083,790	\$284,882	\$3,772,359	\$504,426	\$5,542,927	\$646,867	\$5,674,661	\$703,638
Grants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contracts	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Campus budget allocation: faculty start-up		\$0		\$0		\$0		\$0		\$0
Campus budget allocation:		\$0		\$0		\$0		\$0		\$0
Other Revenues:*		\$0		\$0		\$0		\$0		\$0
Total	\$747,468	\$142,441	\$2,083,790	\$284,882	\$3,772,359	\$504,426	\$5,542,927	\$646,867	\$5,674,661	\$703,638

* State appropriations, etc.

EXPENDITURE ESTIMATES – PUBLIC HEALTH PROGRAM

	Year 1		Year 2		Year 3		Year 4		Year 5	
	2014		2015		2016		2017		2018	
	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources	New Expenditures required for Program	Expenditures from current resources
Personnel Services										
Faculty	\$0				\$90,000		\$90,000		\$190,000	
Administrators: Director of Public Health	\$125,000		\$125,000		\$125,000		\$125,000		\$125,000	
Adjunct Faculty			\$25,000		\$35,000		\$50,000		\$50,000	
Support Staff	\$0		\$50,000		\$50,000		\$50,000		\$50,000	
Others	\$0		\$0		\$0		\$0		\$0	
Fringe Benefits 35%	\$43,750		\$61,250		\$92,750		\$92,750		\$127,750	
Total Personnel	\$168,750	\$0	\$261,250	\$0	\$392,750	\$0	\$407,750	\$0	\$542,750	\$0
Operating Expenses										
Supplies	\$10,000		\$15,000		\$25,000		\$30,000		\$35,000	
Library Resources: see resource discussion in narrative	\$0		\$0		\$0		\$0		\$0	
Marketing/Promotional Expenses	\$15,000		\$15,000		\$15,000		\$15,000		\$15,000	
Laboratory Expenses	\$0		\$5,000		\$15,000		\$25,000		\$40,000	
General Administrative Overhead	\$0		\$0		\$0		\$0		\$0	
Other (specify): Recruiting faculty	\$10,000		\$10,000		\$10,000		\$10,000		\$10,000	
Total Operating Expenses	\$35,000	\$0	\$45,000	\$0	\$65,000	\$0	\$80,000	\$0	\$100,000	\$0
Net Student Assistance										
Assistantships: Stipend and Tuition Remission	\$0	\$0	\$74,000	\$0	\$148,000	\$0	\$222,000	\$0	\$296,000	\$0
Fellowships	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Stipends/Scholarships	\$0	\$0	\$125,000	\$0	\$250,000	\$0	\$375,000	\$0	\$250,000	\$0

Total Student Assistance	\$0	\$0	\$199,000	\$0	\$398,000	\$0	\$597,000	\$0	\$546,000	\$0
Capital										
Facilities / Campus recharges		\$0		\$0		\$0	\$0	\$0	\$0	\$0
Equipment		\$0	\$50,000	\$0	\$50,000	\$0	\$50,000	\$0	\$50,000	\$0
Other: Faculty start-up		\$0			\$75,000				\$75,000	
Total Capital	\$0	\$0	\$50,000	\$0	\$125,000	\$0	\$50,000		\$125,000	\$0
Total Expenditures	\$203,750	\$0	\$555,250	\$0	\$980,750	\$0	\$1,134,750	\$0	\$1,313,750	\$0

BUDGET SUMMARY OF NEW PROGRAM ONLY

	Year 1	Year 2	Year 3	Year 4	Year 5			
	2014	2015	2016	2017	2018			
Total of newly generated revenue	\$747,468	\$2,083,790	\$3,772,359	\$5,542,927	\$5,674,661			
Total of additional resources required for program	\$203,750	\$555,250	\$980,750	\$1,134,750	\$1,313,750			
Excess/ (Deficiency)	\$543,718	\$1,528,540	\$2,791,609	\$4,408,177	\$4,360,911			

Justification of Financial Projections: Public Health Budget Justification

Revenue:

Tuition and Fees:

The revenue for tuition and fees is based on the official table of Fees and Tuition expenses per semester/per credit hour maintained in the UMass Lowell Bursar’s Office. We anticipate that the majority of students will be in state residents with 10% +/- non-residents or international students. The total number of students per year is presented in the narrative and on the final tab.

Grants:

Faculty will be expected to generate extramural funding to support their research activities. We have not included any of these funds in the budget.

Expenditures:

Personnel:

Sufficient administration, faculty and staff will be needed to ensure a strong academic program. We will build on faculty in the Departments of Community Health and Sustainability and Work Environment. Additional teaching requirements will be covered by adjunct faculty and Teaching Assistants. We include 2 additional faculty in year 3 and 5.

Administration: Leadership will be key to successful planning and implementation of the public health program. In Year 1 the Director of the Public Health program will be hired to serve as the primary leader of the Public Health program and will be essential to early development of the program as well as supporting research activities and financial guidance of the program. Oversight of marketing and recruiting of graduate students will also be important roles for the director.

Staff:

Year 2: One administrative staff will be hired to support the program.

Faculty:

Year 3 and 5: Two faculty with unique skills in research and specialized teaching will be added to the public health program in years 3 and 5.

Operating Budget:

The operating budget will cover customary operating expenses such as office supplies, small equipment, laboratory expenses, travel and events.

Marketing/Promotional Expenses:

As a new program, marketing will be important to promote awareness of the program regionally and nationally. Marketing activities will be essential to recruit talented undergraduate and graduate students.

Faculty Recruitment:

Recruitment Expenses:

Identifying and attracting the best faculty will be an essential element of success of the program. The budget incorporates funds for advertising and travel for faculty candidates. This will remain as an annual budget item in anticipation of not only recruiting the faculty hired initially, but also to ensure a strong ongoing recruitment process.

Student Assistance:

Full-time doctoral students will be supported by Teaching Assistantships (TA). The TA position will provide a stipend and tuition remission. These students will be working on their research dissertations in faculty labs. Since the Public Health program does not include a doctoral program, these TAs will be recruited from allied fields such as Work Environment.

Capital:

Facilities:

Adequate space is available on campus to meet the needs of the Public Health program. Ongoing facilities and equipment needs will be incorporated into faculty start-up packages.

Start-up Packages:

Faculty in Public Health will need start-up support to set-up their program of research and to develop a successful external funding research agenda. These faculty will be expected to bring in funding to support all their research activities and graduate students working in their research labs. Faculty will be provided an average of \$75K for research start-up. Tenure will be partially dependent on funding success.

Budget Balance:

Since the Public Health BS and MPH degrees will utilize existing faculty for the vast majority of the teaching, the program expects to return funds to the university from the very first year. If enrollment grows beyond modest projections shown in the plan, surplus revenue will increase.

Note: No effort was made to predict changes in revenue and expenditures such as increases in cost of living, tuition and fees, salaries, and other operating expenses. While we know these changes will occur, the relative impact is unknown.

ATTACHMENT C: FACULTY FORM

Name of faculty member (Name, Degree and Field, Title)	Tenured Y/N	Courses Taught Put (C) to indicate core course. Put (OL) next to any course currently taught online.	# of sections	Division or College of Employment	Full- or Part-time in Program	Full- or part- time in other department or program (Please specify)	Sites where individual will teach program courses
Ackerson, Leland Sc.D., Social Epidemiology Assistant Professor	N	● Intro to Epidemiology	1	College of Health Sciences	Part-Time	Part-Time, Community Health & Sustainability	● Main campus
		● Service Learning in Comm Hlth	1				
		● Community Health & Environment	1				
		● Research Methods/Public Health	1				
		● Socio-Eco Health Assessment	1				
Barrile, Renee Ph.D., Nutrition Biochemistry Lecturer	N	● Human Nutrition	2	College of Health Sciences	Part-Time	Part-Time, Clinical Laboratory & Nutritional Sciences	● Main campus
		● Obesity & Weight Control	1				
		● Nutrition and Health	1				
		● Life Cycle Nutrition	1				
Bello, Dhimiter Sc.D., Occupational Hygiene Associate Professor	Y	● Toxicology and Health	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	● Main campus
		● Eval of Work Environment Haz	1				
		● Exposure and Risk Assessment	1				
Brunette, Maria Ph.D., Industrial & Systems Engineering Associate Professor	Y	● Ind Hygiene & Ergonomics	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	● Main campus
		● Occupational Safety Engineering	1				
		● Global Health	1				
Buchholz, Bryan Ph.D., Bioengineering Professor	Y	● Intro Biomed Eng & Biotech	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	● Main campus
		● BMBT Lab Experience	3				
		● Occup Biomechanics	1				
Champagne, Nicole Ed.D., Health Education	Y	● Prog Planning in Hlth Promo	1	College of Health Sciences	Part-Time	Part-Time, Community	● Main campus

Associate Professor, Dept. Chair		• Comm Tech in Hlth Promo	1			Health & Sustainability	
		• Community Hlth & Env	2				
		• Intro to Public Health	1				
		• Mind, Body & Health	1				
Cifuentes, Manuel Sc.D., Epidemiology Associate Professor	N	• Intro Biostat & Epidem	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Adv. Regression Modeling	1				
		• Biostatistics for Health Data	1				
Ellenbecker, Michael Sc.D., Environmental Health Sciences Professor	Y	• Solutions for Work Env Hazards	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Toxic Use Reduction	1				
Fantasia, Heidi Ph.D., Nursing Assistant Professor	N	• Health Promotion Fam I	1	College of Health Sciences	Part-Time	Part-Time, Nursing	• Main campus
		• Family Health Nursing I	1				
Foco, Rebecca Ph.D., Education Lecturer	N	• Community Health & Environment	3	College of Health Sciences	Part-Time	Part-Time, Community Health & Sustainability	• Main campus
		• Intro to Health Promotion	2				
		• Applied Tech in Health Promotion	1				
He, Guixin (Susan) Ph.D., Microbiology Assistant Professor	N	• Bas CI Micro & Pathology	3	College of Health Sciences	Part-Time	Part-Time, Clinical Laboratory & Nutritional Sciences	• Main campus
		• Bas CI Micro & Path Lab	2				
Karasek, Robert Ph.D., Sociology & Labor Relations Professor	Y	• Analytical Context of Work Env	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Hlth Work Org Design	1				
		• Human Factors	1				
		• Research Methods	1				
King, Valerie Ph.D., Nursing Clinical Assistant Professor	N	• Adv Hlth Assess & Diag	4	College of Health Sciences	Part-Time	Part-Time, Nursing	• Main campus
		• Community Project	1				
		• Family Hlth NU III	1				
		• Family Hlth NU III Lab	1				
		• Global Hlth Exper	1				

Knight, Margaret Ph.D., Nursing Associate Professor	Y	• Research/Nursing & Health Care	1	College of Health Sciences	Part-Time	Part-Time, Nursing	• Main campus
		• Health Promotion Fam II	2				
		• Com Hlth & Health Policy	1				
		• Theoretical Found Adv Nrs Prac	1				
Koren, Ainat Ph.D., Nursing Associate Professor	Y	• Health Promotion Fam I	2	College of Health Sciences	Part-Time	Part-Time, Nursing	• Main campus
		• Health Promotion Research	1				
		• Role Practicum	1				
Kriebel, David Sc.D., Epidemiology and Occupational Health Professor, Dept. Chair	Y	• Epidemiology Theory	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Quantitative Models Env Health	1				
		• Appl Epidemiology Methods	1				
Lee, A. James Ph.D., Economics Associate Professor	Y	• Quantitative Methods in Hlth Mgt	2	College of Health Sciences	Part-Time	Part-Time, Community Health & Sustainability	• Main campus
Mass, William PhD., Economics Associate Professor	Y	• Sustainable Development	2	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Inequality and Organization	1				
		• Org Dyn & Regional Dev	1				
Melillo, Karen Ph.D., Nursing Professor, Dept. Chair	Y	• Res/Evidence Based Prac	1	College of Health Sciences	Part-Time	Part-Time, Nursing	• Main campus
Murphy, Deirdra DPT (Doctor of Physical Therapy) Associate Professor	Y	• Univ Design/Promotion of Health	1	College of Health Sciences	Part-Time	Part-Time, Physical Therapy	• Main campus
		• Business Skills in PT	1				
		• Service Learning in PT	1				
Nannini, Angela Ph.D., Nursing Associate Professor	Y	• Soc, Cult & Pol Iss in Hlth Cr	1	College of Health Sciences	Part-Time	Part-Time, Nursing	• Main campus
		• Evidence Appraisal	1				
		• Evid. Dissemination, Adv. & Pol	1				
Punnett, Laura Sc.D., Occupational Health and Epidemiology Professor	Y	• Musculoskeletal Epidemiology	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Intervention Research	1				

Quinn, Margaret Sc.D., Industrial Hygiene Professor	Y	• Exposure Assessment	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Exposure and Risk Assessment	1				
		• Work Environment Policy	1				
Slatin, Craig Sc.D., Work Environment Policy Professor	Y	• Cont. Hlth Problems I	1	College of Health Sciences	Part-Time	Part-Time, Community Health & Sustainability	• Main campus
		• Serv. Lrng in CH	1				
		• Politics of Health	1				
		• Program Mgmt in Health	1				
Tickner, Joel Sc.D., Cleaner Production and Pollution Associate Professor	Y	• Research Methods/ Public Health	1	College of Health Sciences	Part-Time	Part-Time, Community Health & Sustainability	• Main campus
		• Environment Health in Practice	1				
Woskie, Susan Ph.D., Biomedical Science/Industrial Hygiene Professor	Y	• Intro to Environ Health	1	College of Health Sciences	Part-Time	Part-Time, Work Environment	• Main campus
		• Industrial Hygiene & Ergonomics	1				
		• Measurement Chemical Exposure	3				