Western Kentucky University
MS - MASTER OF SCIENCE
51.2202-Environmental Health.
Pre-Proposal Date: 04/10/2014
End of Review Date: 05/25/2014

Pre-Proposal - Basic Info

Institution :	Western Kentucky University
Program Type :	Single Institution
Program Name :	Environmental and Occupational Health Science
Degree Level :	Master's
Degree Designation :	MASTER OF SCIENCE

Is the program a pre-baccalaureate certificate, Associate of Applied Science (AAS), or diploma program? No

CIP Code (2-Digit) :	51-HEALTH PROFESSIONS AND RELATED PROGRAMS.
CIP Code :	51.2202-Environmental Health.

Is this program an advanced practice doctorate? No

Proposed Implementation Date : 8/15/2014

Institutional Contact Information

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Pre-Proposal - Mission: Centrality to the Institution's Mission and Consistency with State's Goals

1. Provide a brief description of the program.

The graduate program in Environmental and Occupational Health Science is designed to provide graduate education for careers focused on the protection of human health and prevention of health hazards in built, occupational, and natural environments. A key component of the program is to understand how exposure to environmental and occupational hazards occurs, and discovering ways to reduce and control the risk of exposure. This interdisciplinary field focuses on environmental hazards to human health, assessment of exposures, mechanisms of environmental response, control of risks associated with environmental hazards, improving environmental and occupational health, occupational safety, health protection and promotion, as well as protecting natural systems that support human health. Program requirements will provide students a foundation of advanced studies that will increase their skills and knowledge for protecting human health and the environment. This program is designed for working professionals and students desiring opportunities with industry, consulting firms, government agencies, and other environmental and occupational health science professions.

Name / Description:

0

2. What are the objectives of the proposed program?

This graduate program is designed to enhance the educational opportunities for environmental and occupational health science professionals. The program will:
• Provide students with an in-depth exposure to methodologies to assess hazards and improve health in the built, occupational, and natural environments.
• Engage students in applied research and service learning at the local, regional, and global scales.
• Provide students with a foundation to evaluate environmental and occupational issues that impact human health and the environment.
• Develop students' application of research, data analysis, monitoring, and communication methods used to solve environmental and occupational health problems.
• Provide students with opportunities for practice learning through internships, international programs, and research.
• Allow students to conduct research focused on the protection of human health and prevention of health hazards in occupational and natural environments.
• Provide students with the skills to communicate environmental and occupational risks to promote and protect the health of the public.

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3. Explain how the objectives support the institutional mission and strategic priorities, the statewide postsecondary education strategic agenda, and the statewide strategic implementation plan.

As the vision of Western Kentucky University is, “A Leading American University with International Reach”, the Environmental and Occupational Health Science graduate program will be built upon this vision. Already, the faculty and students in the Department of Public Health are extremely diverse, and we have initiatives that extend our reach into our community locally and internationally. For example, we currently are part of an international service-learning program in the Caribbean.

The Environmental and Occupational Health Science graduate program at Western Kentucky University will prepare students to be productive and engaged leaders in a global society. As such, the program will follow the mission of WKU. Through the program’s thesis research and internship requirements, opportunities will be provided to students, faculty, and constituents for teaching, research, and service. These opportunities will be local, regional, national, and international in scope. Likewise, the Environmental and Occupational Health Science graduate program will foster a high quality of life in the region by providing research and service in the protection of human health and environment, serving to reduce the impact of environmental hazards on human health, and developing innovative solutions.

The objectives support the statewide postsecondary education strategic agenda by preparing students to succeed in a global economy. Kentucky is home to many global industrial facilities. Students who graduate from this program will be highly marketable in this arena.

Statewide Postsecondary Education Strategic Agenda:

The statewide postsecondary education strategic agenda will be addressed by graduates through the application of environmental and occupational health competencies of assessment, management, and communication. As such, graduates from the program will be “informed, competent, knowledgeable, and engaged” in addressing the multitude of facets related to environmental and occupational health. Industry leaders are increasingly desirous of employees who have research and data analysis skills, as well as a firm understanding of environmental and occupational health challenges. Collectively, these skills can be related to the anticipation, recognition, evaluation, and control of challenges in environmental and worksite settings. The integrative nature of the graduate program will ensure the stated value of “engagement with business, industry, and other community partners to improve economic vitality and quality of life”. Students will engage with business, industry and other community partners through research, service, and internships in environmental and occupational health. In meeting such a need, students graduating from the proposed program will have the skill set necessary to contribute to this trend at the national and international level, as well as across the Commonwealth. In accordance with the stated value of “access for all who are committed to the pursuit of higher learning” the program will remain open to all students admitted to the Graduate School of Western Kentucky University.

Statewide Strategic Implementation Plan:

Included in the statewide strategic implementation plan is the core idea of balancing quality and quantity or balancing the need for high-quality credentials that allow individuals to be successful with the demand to increase degree production. The proposed graduate program will contribute to this effort by expanding the existing undergraduate programs in Environmental Health Science, Occupational Safety and Health, and Worksite Health Promotion and allowing students opportunities to access graduate studies in the central area of their primary interest and need, thus “strengthening current programs and expanding new ones” to help control costs, at the individual, institutional and state level.
The CIP code for this program is one of the CIP codes within the Science, Technology, Engineering, and Mathematics (STEM) disciplines. One of the performance metrics for the statewide strategic implementation plan is related to the “degrees and credentials in the science, technology, engineering, mathematics, and health-related fields.” The proposed program will fulfill this metric.

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PreProposal - Quality: Program Quality and Student Success

1. What are the intended student learning outcomes of the proposed program?

The proposed Master of Science Degree in Environmental and Occupational Health Science and coursework are designed to provide graduate education for careers focused on the protection of human health and prevention of health hazards in occupational and natural environments. A key component of the program is to understand how exposure to environmental and occupational hazards occurs, and discovering ways to reduce and control the risk of exposure. This interdisciplinary field focuses on environmental hazards to human health, assessment of exposures, mechanisms of environmental response, control of risks associated with environmental hazards, improving occupational health, and protecting natural systems that support human health. Students will attain analytical and statistical analysis skills in the application of research methods in environmental and occupational health science. Key components of the program will include development of students' communication skills specific to environmental and occupational health research, both written and oral. Students will gain knowledge and skills in environmental health, biostatistics, epidemiology, environmental toxicology, and research methods that can be applied in their professional practice of environmental and occupational health science. This program is designed for working professionals and students desiring opportunities with industry, consulting firms, government agencies, and other environmental and occupational health science professions.

Specifically, students graduating from the program will:
• Develop the capacity to identify sources and compile relevant and appropriate information when needed, and the knowledge of resources to obtain the information.
• Analyze data, interpret and recognize meaningful results, and present the information in an appropriate way to different types of audiences.
• Evaluate the effectiveness or performance of procedures, interventions, and programs.
• Develop insight into and appropriate solutions to environmental and occupational health problems.
• Understand and appropriately utilize information concerning the economic and political implications of decisions.
• Function effectively within the culture of the organization and to be an effective team player.
• Plan, implement, and maintain fiscally responsible programs/projects using appropriate skills, and prioritize projects across the employee's entire workload.
• Utilize information technology as needed to produce work products.
• Produce reports to document actions, keep records, and inform appropriate parties.
• Form partnerships and alliances with other individuals and organizations in order to enhance performance on the job.
• Use the environmental health practitioner's frontline role to effectively educate the public on environmental health issues and the public health rationale for recommendations.
• Communicate risk and exchange information with colleagues, other practitioners, clients, policymakers, interest groups, media, and the public through routine activities, public speaking, print and electronic media, and interpersonal relations.
• Facilitate the resolution of conflicts within the agency, in the community, and with regulated parties.
• Articulate basic concepts of environmental health and public health and convey an understanding of their value and importance to clients and the public.

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PreProposal - Quality: Program Quality and Student Success

2. How will the program support or be supported by other programs within the institution?

Environmental and Occupational Health Science programs have an interdisciplinary focus. This trend is maintained in the proposed graduate program with the inclusion of existing environmental health electives, and courses in research methods, worksite health, occupational health, toxicology, biostatistics, epidemiology, and other disciplines as applicable. The proposed graduate program will extend the current structure and focus of the existing undergraduate programs in Environmental Health Science, Occupational Safety and Health, and Worksite Health Promotion. It will allow students and professionals in environmental and occupational health fields to pursue a graduate program reflective of this interest.

Environmental and Occupational Health, as a discipline, arose as applied fields of medicine, public health, environmental sciences, and industrial health. Examinations of the etiology of health effects and preventive measures/corrective interventions are intricately tied to core environmental and occupational health science concepts. This graduate program is unique to WKU and will meet educational needs of students and professionals in the fields of environmental and occupational health science.

3. Will this program replace or enhance any existing program(s) or tracks, concentrations, or specializations within an existing program?

NO

4. Will this be a 100% distance learning program?

NO

5. Will this program utilize alternative learning formats (e.g. distance learning, technology-enhanced instruction, evening/weekend classes, accelerated courses)?

YES

Distance learning

Courses that combine various modes of interaction, such as face-to-face, videoconferencing, audio-conferencing, mail, telephone, fax, e-mail, interactive television, or World Wide Web

Technology-enhanced instruction

Evening/weekend/early morning classes

Instruction at nontraditional locations, such as employer worksite

6. Are new or additional faculty needed?

NO

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1. Provide justification and evidence to support the need and demand for this proposed program. Include any data on student demand; career opportunities at the regional, state, and national levels; and any changes or trends in the discipline(s) that necessitate a new program.

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The new program will provide graduate studies specific to Environmental and Occupational Health Science professionals and students. Development of the new program was initiated due to inquiries made by potential students into the MPH Environmental Health program. Many of the inquiries did not result in students pursuing the MPH degree, as they wanted a graduate degree specific to Environmental and Occupational Health Science.

Professionals in the environmental and occupational health sciences fields within the Western Kentucky University region have limited opportunities for graduate study specific to their profession. Currently, an Environmental and Occupational Health Science graduate program does not exist in Kentucky. An undergraduate Environmental Health Science degree is offered within the Western Kentucky University, Department of Public Health, as well as a Master of Public Health degree with a concentration in Environmental Health. A similar program exists at Eastern Kentucky University. However, it is offered as a concentration within a Master of Public Health Program, just as the WKU Department of Public Health has an Environmental Health concentration in the Master of Public Health degree. Eastern Kentucky University does not have a stand-alone Environmental Health Science graduate program. The proposed program would be the first and only Master of Science in Environmental and Occupational Health Science program offered in Kentucky. Currently, the nearest accredited program is East Tennessee State University. This program is a Master of Science Program in Environmental Health. Other programs accredited by the National Environmental Health Science and Protection Accreditation Council include California State University, East Carolina University, Mississippi Valley State University, Old Dominion University, University of Findlay, and University of Illinois, Springfield.

The field of environmental scientists and specialists, including health in Kentucky is expected to grow faster than the average (11%) for all occupations (U.S. Bureau of Labor Statistics, 2014). This field is expected to increase by 15% between 2012 and 2022 in Kentucky (Kentucky Labor Market Information, 2014). Public interest in hazards facing the environment and communities is expected to increase demand for this occupation. As the population increases, there will be more opportunities for environmental protection and compliance (Kentucky Labor Market Information, 2014).

Environmental consulting in the private sector should provide the fastest job growth in the environmental scientists and specialists, including health sector, in Kentucky (Kentucky Labor Market Information, 2014). Many consulting firms hire these professionals to help businesses and government address issues related to underground storage tanks, land disposal areas, environmental compliance, and other hazardous waste management services. In the environmental scientist field, there is a shift from investigations to preventive management, which will provide many new opportunities for additional job growth. Typical degrees for this field are environmental science or environmental health (Kentucky Labor Market Information, 2014).

Other occupations applicable to the proposed degree are occupational health and safety specialists, health and safety engineers, occupational health and safety technicians, and environmental science and protection technicians, including health. Each of these occupations is expected to experience growth through 2022 as indicated in the Bureau of Labor Statistics, U.S. Department of Labor's, Occupational Outlook Handbook (2014). The least growth expected, 2012-2022, is 7% for occupational health and safety specialists. All other occupations listed are projected to grow by 11% to 19% (Bureau of Labor Statistics, 2014).

Although occupational health and safety specialists are only expected to grow by 7% for the period of 2012-2022 in Kentucky, a survey conducted by faculty in the Department of Public Health, as discussed below, indicated that about 92% of the respondents think a specific graduate program is needed. This is further supported in review of the data regarding education level requirements for Occupational Health and Safety Specialists (Kentucky Labor Market Information, 2014). The Kentucky Labor Market Information (2014) indicates the following for Occupational Health and Safety Specialists:

"Despite slower than average employment growth, job opportunities for individuals with advanced degrees are expected to be good. Further, it was noted that Candidates with certification might enjoy more job opportunities. In addition, a large number of currently practicing occupational health and safety specialists are expected to retire over the coming decade, creating opportunities for new specialists".

Environmental compliance inspectors are the last related occupation to report. This occupation is expected to grow slower

than average (5%) from 2012 to 2022 at the national scale (U.S. Bureau of Labor Statistics, 2014). However, similar to the occupational health and safety specialists, the education level most reported is a Bachelor's Degree, 87.7% of respondents. Only 8.8% reported to have a post post-baccalaureate certificate, while only 1.75% reported having a Master's degree (U.S. Bureau of Labor Statistic, 2014). This information shows that growth can be expected to occur in Master's programs related. Especially as individuals in this occupation seek to be promoted. For example, based on conversations with an alumnus, environmental compliance professionals for Kentucky earn a salary increase for each 15 hours of education beyond the baccalaureate level. This creates a unique niche for the proposed program.

Wage data is reported in Table 1 for the various occupations discussed. Information for wages in Kentucky was acquired through Kentucky Labor Market Information (2014). Wage data for the nation was available through the Bureau of Labor Statistics (2014). Wages for occupations in Kentucky, related to the proposed degree, ranged from $43,747, minimum mean, to $96,268, maximum for experienced. National wage data showed the minimum median to be $41,240 and the maximum top 10% to be $118,750.

Table 1. Average and median wage data for the occupations related to the proposed EOHS Master of Science Degree in Kentucky (KY) and the Nation (Median/Top10%).
Environmental scientists and specialists, including health: KY: $55,933/$83,345; Nation (Median/Top10%):$63,570/ $109,970
Occupational health and safety specialists: KY: $62,044/$86,794; Nation (Median/Top10%): $66,790/$97,380
Health and safety engineers: KY: $69,202/$96,268; Nation (Median/Top10%): $76,830/$118,750
Environmental compliance inspectors: KY: $51,269/$76,345; Nation: N/A
Occupational health and safety technicians: KY:$43,747/$83,175; Nation (Median/Top 10%): $47,440/$75,200
Environmental science and protection technicians, including health: KY:$44,427/$68,696; Nation(Median/10%): $41,240/ $68,620
1 Kentucky Labor Market Information, 2014
2 U.S. Bureau of Labor Statistics, 2014

To further assess the need for graduate studies specific to Environmental and Occupational Health Science we conducted a survey of 97 professionals, alumni, and students in the spring semester of 2013. The sample was made up of 33.3% students and 66.7% professionals in the environmental and occupational health science fields in Kentucky, centered in South Central Kentucky. A response rate of 38.1% (37) was attained. Survey results indicated that the major fields of study that impact respondents' current job or position are environmental management, occupational safety and health, industrial hygiene, and statistics. Respondents reported major responsibilities to be preparation of technical reports (81.1%) and data analysis (73.0%). Additional responsibilities reported were evaluation of procedures and programs (62.2%), project management (62.2%), occupational safety and health management (56.8%), environmental monitoring (56.8%), policy and regulatory analysis (54.1%), environmental compliance (54.1%), and environmental management (51.4%). Respondents were asked, "What graduate degree would be best suited for your professional advancement?" Responses (35) to this survey question indicated a Master of Science in Environmental and Occupational Health Science (22.9%), Master of Science in Environmental Health and Safety (20.0%), Master of Science in Occupational Safety and Health (17.1%), a Master of Science in Environmental Management (17.1%) or a Master of Science in Environmental Health Science (14.3%). In review of the 35 responses to this question, only 8.6% indicated a Master of Public Health in Environmental Health. Two respondents listed other degrees; these were Master of Science in Safety and Health Management, and Master of Science in Industrial Hygiene. Due to the varied nature of job requirements reported, respondents selected degree titles that included the words environmental and/or occupational. Finally, when respondents were asked, "In your opinion, is a graduate degree specific to your professional field needed in the Western Kentucky region?" a total of 33 (91.7%) respondents selected "Yes" and three (8.3%) respondents selected "No", with one respondent skipping the question.

Enrollment projections for the EOHS M.S. degree, as shown in the corresponding degree table, are derived from an Environmental Health Science (EHS) alumni and professionals survey, discussed above, a survey of current EHS undergraduate students of junior and senior standing, enrollments in the MPH Environmental Health concentration and EHS graduate certificate, as well as market projections for employment of environmental and occupational health science

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professionals. The projections include 8 new students in Year 1 (8 total students), 8 new students in Year 2 (16 total students), 9 new students in Year 3 (17 total students), 10 new students in Year 4 (19 total students), and 12 new students in Year 5 (22 total students). Students are estimated to take 9 credit hours per semester (18 credit hours per year for 2 years) at the resident graduate tuition rate with a 3% tuition escalator per year.

A survey of current EHS undergraduate students of junior and senior standing (n=25), with 10 respondents, indicated that 80% of respondents (n=8) plan to attend graduate or professional school. When asked, “Would you enroll in the proposed M.S. in Environmental and Occupational Health Science at Western Kentucky University?” a total of 5 (50%) respondents selected “Yes” and 4 (40%) indicated they would consider enrolling in the program. Therefore, of all respondents, 90% indicated they would enroll in the program or consider enrolling in the proposed EOHS M.S. degree.

Current enrollment in the Environmental Health Concentration of the MPH program is 19 students. There are two additional students enrolled in the graduate Environmental Health and Safety Certificate program that would matriculate into the proposed program. The projected enrollments in the proposed EOHS program are in line with current enrollments in the related Environmental Health concentration of the MPH program. Additionally, we have developed a list of students outside of the current programs that have inquired about a graduate degree specific to Environmental and Occupational Health Science.

Worksite Health Promotion (WHP) is a field that has seen phenomenal growth in the past few decades. Results from the Towers Watson/National Business Group on Health 2011/2012 “Staying@Work” study reveals that essentially all respondents (U.S. and Canada) expect their organization’s support of health and productivity programs to increase over the next two years. The high cost of health care, loss of productivity due to occupational related illness and injury, and chronic diseases, resulting from poor health habits of employees are forcing American businesses to consider prevention strategies over the more traditional medical, or treatment model, to stay competitive in a global marketplace. According to Buck Consultant’s 2010 Global Wellness Survey, health promotion programs are most prevalent in North America, where they are offered by 74 percent of surveyed employers, but health promotion programs are increasing throughout the world, with 41 to 49 percent of surveyed employers providing programs to their employees in all regions outside North America.

The WHP workforce currently is an assortment of individuals with varying backgrounds and training. While many individuals chose this field, others were assigned to manage their health promotion programs due to the convenience of their positions within their company, such as human resource professionals or occupational nurses, while having this role added to their list of responsibilities. Although many of these individuals may have highly desirable job skills, the challenge is to find individuals who have been formally trained to plan, implement, and evaluate programs, practices and policies related to successful worksite health promotion management. According to the U.S. Bureau of Labor Statistics (2010), the 2010-2020 job outlook for health educators in the U.S. workforce is a 37 percent growth rate, which is much faster than the average for all occupations. The report notes that this growth is driven by efforts to reduce healthcare costs by teaching people about healthy habits and behaviors. Given the recent requirements mandated by the 2010 Affordable Care Act, the time has come to require that those entering the WHP field are formally prepared with the knowledge and skills needed to be successful in this dynamic environment.

To assess the need for student demand a survey was conducted October 2012 throughout the state of Kentucky on The Partnership for a Fit Kentucky’s website to review the interest in graduate curriculum in worksite health promotion. The skills of program planning, evaluation, health communication, policy, financial strategies and marketing were addressed. There was a 51% return rate with 70.7% of those who participated answered that they would be interested in graduate curriculum in the worksite health promotion field.

Based upon the market, which includes past experience with students not desiring to pursue the MPH with a concentration in Environmental Health and the results of the survey, stating the need for graduate studies in Environmental and Occupational Health Science, the new graduate degree program is proposed. The proposed program will be an extension of the existing Environmental Health Science undergraduate program, the Environmental Health and Safety graduate certificate, and the Advanced Worksite Health Promotion Certificate. Additionally, all courses for the proposed program are existing courses.

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Pre-Proposal - Demand: Program Demand/Unnecessary Duplication

2. Specify any distinctive qualities of the program.

The Environmental and Occupational Health Science program will focus on the study of the protection of human health from hazards found in the built, occupational and natural environments. The proposed program would be the first and only Master of Science in Environmental and Occupational Health Science program offered in the WKU service area and in Kentucky.

3. Our records indicate the following similar programs exist

---- No Programs Exist----

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Pre-Proposal - Cost: Cost and Funding of the Proposed Program

1. Estimate the level of new and existing resources that will be required to implement and sustain the program using the spreadsheet below.

A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
Total Resources Available from Federal Sources					
New :	0	14832	15277	15735	16207
Existing :	14400	0	0	0	0
Narrative Explanation/Justification :	Each summer funding is available for graduate research assistants to conduct hazardous material commodity flow studies in Kentucky communities. This funding has been acquired the past three years. Three hazardous materials commodity flow studies are slated for Summer 2014 and funding requests are being developed with Kentucky Emergency Management for subsequent summers. This funding is acquired through the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.				
Total Resources Available from Other Non-State Sources					
New :	0	0	25500	0	0
Existing :	12376	24751	0	25500	25500
Narrative Explanation/Justification :	A grant with the Center for Produce Safety will provide a stipend and tuition for a graduate research assistant in the Fall 2014, Spring 2015, and Fall 2015. This grant includes salary for the graduate assistant in Summer. It is anticipated that additional funding will be attained through grants to support at least one graduate research assistant for the 3rd through 5th years.				
State Resources					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Internal					
Allocation :	0	0	0	0	0
Reallocation :	185738	193167	200894	208930	217287
Narrative Explanation/Justification :	Classes for the proposed Environmental and Occupational Health Science, Master of Science degree are offered as part of graduate certificate programs and the MPH and Environmental Health concentration. The existing internal includes 50% salary/fringe for four current faculty that teach EOHS content, with a 4% escalator each year for personnel.				
Student Tuition					
New :	72672	74856	86742	99270	122700
Existing :	0	74856	77104	89343	102250

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1. Estimate the level of new and existing resources that will be required to implement and sustain the program using the spreadsheet below.

A. Funding Sources, by year of program	1st year	2nd year	3rd year	4th year	5th year
Narrative Explanation/Justification :	Tuition is based on projected enrollment derived from an EHS alumni and professionals survey, a survey of current EHS undergraduate students of junior and senior standing, enrollments in the MPH Environmental Health concentration and EHS graduate certificate, as well as market projections for employment of environmental and occupational health science professionals. The projections include 8 new students in Year 1 (8 total students), 8 new students in Year 2 (16 total students), 9 new students in Year 3 (17 total students), 10 new students in Year 4 (19 total students), and 12 new students in Year 5 (22 total students). Students are estimated to take 9 credit hours per semester (18 credit hours per year for 2 years) at the resident graduate tuition rate with a 3% tuition escalator per year.				
Total					
New :	$72,672	$89,688	$127,519	$115,005	$138,907
Existing :	$212,514	$292,774	$277,998	$323,773	$345,037
Total Funding Sources :	$285,186	$382,462	$405,517	$438,778	$483,944

B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Staff: Executive, administrative, and managerial					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Other Professional					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Faculty					
New :	0	0	0	0	0
Existing :	185738	193167	200894	208930	217287
Graduate Assistants (if master's or doctorate)					
New :	37168	0	20140	0	10640
Existing :	0	38283	39432	61359	63199
Student Employees					
New :	6000	0	0	0	0
Existing :	0	6000	6000	6000	6000

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Narrative Explanation/Justification :	The student employee will work with faculty and staff to assist with administrative tasks. This may include data entry, document management, and filing of electronic documents. Other job responsibilities will include collation of marketing materials, maintenance of a website, and general office duties.				
Equipment and Instructional Materials					
New :	0	5000	7500	10000	20000
Existing :	5000	5000	5000	7500	10000
Narrative Explanation/Justification :	Laboratory and field equipment and supplies are needed to support the EOHS M.S. degree program. Several courses will require use the Environmental Health Laboratory and scientific equipment to conduct environmental and occupational measurements. Expendable laboratory supplies will be needed each year. Finally, equipment calibrations must be maintained, as well as repair and purchase of equipment. The existing budget will be supplemented with new funds in each year of the program.				
Library					
New :	0	0	0	0	0
Existing :	5250	5250	5250	5250	5250
Narrative Explanation/Justification :	The library maintains a collection to support the Public Health Department, which includes materials for the MPH and undergraduate degree in Environmental Health Science. Acquisitions for the Environmental and Occupational Health Science program amount to $5250 per year, and will support the major and minor sufficiently.				
Contractual Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Academic and/or Student Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Other Support Services					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Faculty Development					
New :	0	2500	500	500	500
Existing :	4000	4000	6500	7000	7500

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B. Breakdown of Budget Expenses/Requirements	1st year	2nd year	3rd year	4th year	5th year
Narrative Explanation/Justification :	The Public Health Department and College of Health and Human Services support professional development of faculty. This support will continue and generally amounts to $1,000 per year. The proposed program will support an addition of $2500 in the 2nd Year and $500 each year through the 5th year, to total $8,000, new and existing. New funds are needed to support faculty for conferences, trainings, and other faculty development.				
Assessment					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Student Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Faculty Space and Equipment (if doctorate)					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Other					
New :	0	0	0	0	0
Existing :	0	0	0	0	0
Narrative Explanation/Justification :					
Total					
New :	$43,168	$7,500	$28,140	$10,500	$31,140
Existing :	$199,988	$251,700	$263,076	$296,039	$309,236
Total Budget Expenses/Requirements :	$243,156	$259,200	$291,216	$306,539	$340,376
Grand Total					
Total Net Cost :	$42,030	$123,262	$114,301	$132,239	$143,568

Western Kentucky University
MS - MASTER OF SCIENCE
51.2202-Environmental Health.
Pre-Proposal Date: 04/10/2014
End of Review Date: 05/25/2014

Pre-Proposal - Assess: Program Review and Assessment

1. Identify both the direct and indirect methods by which the intended student learning outcomes will be assessed.

Because the proposed graduate program is comprised entirely of courses already being offered, student learning outcomes will be assessed in the core courses. Students will be assessed in the following subject areas: environmental health, biostatistics, epidemiology, research methods, environmental toxicology, and environmental and occupational epidemiology. Currently, students are assessed through a core exam, course examinations using both objective and essay formats, in-class discussions, debates, exercises, writing assignments, research papers, term papers, field exercises, laboratory exercises, and collaborative and independent applied projects. Pursuant to the Council on Postsecondary Education policy and procedures, the proposed program quality and student success will be evaluated using:

1. Evidence of attainment of student learning outcomes (as illustrated above).
2. External awards or other recognition of the students, faculty, and/or program.
3. Average actual time and credit to degree.
4. Internship supervisor satisfaction with interns as measured by an internship survey.
5. Employer satisfaction with graduates as measured by surveys and/or alumni satisfaction.
6. Job placement or graduate school admission.
7. Pass rates on licensure/certification exams (if applicable).

An assessment of student learning outcomes will be measured by thesis research or internship with portfolio. These will integrate fundamental concepts, theories, research methods, and substantive subject areas learned during their pursuit of this graduate program. In addition, students will defend their thesis research or present their internship portfolio. An exit survey of program competencies will be administered to all graduating students in their last semester of study.