# SELF-STUDY FOR ACCREDITATION OF MASTER OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCE

**National Environmental Health Science and Protection Accreditation Council (EHAC)**

**Submitted by:**
**Faculty of the Department of Public Health**
**College of Health and Human Services**
**Western Kentucky University**

**December 1, 2018**

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## Introduction

### a. Program name

Master of Science in Environmental and Occupational Health Science (MS-EOHS)

### b. Name of School or College

College of Health and Human Services (CHHS)

### c. Name of Institution

Western Kentucky University (WKU)

### d. Name of the program administrator or contact person including mailing address, telephone number, fax number, E-mail address


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### e. Name of the chairperson of the department

William Mkanta, PhD
Associate Professor and Chair, Department of Public Health

### f. Name of the dean of the school/college

Dennis George, PhD
Interim Dean, College of Health and Human Services

### g. Name of the administrator who is to sign for the institution

Dennis George, PhD
Interim Dean, College of Health and Human Services

## h. State of the institutional philosophy

**WKU History and Philosophy (From 2018 – 2019 Catalog)**

On March 21, 1906 the Kentucky General Assembly approved legislation to establish two teacher training institutions, or "normal schools," in the state. A locating commission chose Bowling Green to be the site of one, and the Western Kentucky State Normal School was created. The new state-supported school took over the building and student body of the privately owned Southern Normal School. The owner of the Southern Normal School, Henry Hardin Cherry, had been actively involved in the campaign to establish teacher training schools and became the institution's first president. Classes began on January 22, 1907.

On February 4, 1911 the school moved to its present site on "the Hill," approximately 125 feet above downtown Bowling Green and formerly the site of the Pleasant J. Potter College. Over the next decade, the curriculum focused on teacher training and certification. In 1922, the state renamed the institution Western Kentucky State Normal School and Teachers College and authorized it to grant four-year degrees. The first such degrees were awarded in 1924. The campus expanded in 1927, when it merged with Ogden College, a private young men's school located on the east side of the Hill. The name was shortened to Western Kentucky State Teachers College in 1930, and the following year the first graduate degree was offered.

In the 1950s and 1960s, both the curriculum and campus underwent major reorganization and expansion. In 1963 the institution merged with the Bowling Green College of Commerce. Along with the graduate school, the Bowling Green College of Commerce became a separate college within the academic structure. In 1965, the Board of Regents approved the formation of three more colleges: the Potter College of Liberal Arts, the College of Education, and the Ogden College of Science and Technology. On June 16, 1966, Western Kentucky State College became Western Kentucky University.

More colleges and reorganization followed throughout the years as WKU continued to expand. The College of Health and Human Services was established in 2002, and the Division of Extended Learning and Outreach launched in 2003. In 2008, the WKU Board of Regents approved the creation and development of a fully-independent Honors College at WKU. In 2011 the first doctoral degrees were awarded through the College of Education and Behavioral Sciences. In 2011 and 2013 two new professional practice doctoral degrees, the Doctor of Nursing Practice and the Doctor of Physical Therapy, were established, and in 2015 the Doctor of Psychology was added.

**WKU Mission, Statement of Purpose and Core Values (from 2018 – 2019 Catalog)**

**Mission**

Western Kentucky University (WKU) prepares students of all backgrounds to be productive, engaged, and socially responsible citizen-leaders of a global society. The University provides research, service, and lifelong learning opportunities for its students, faculty, and other constituents. WKU enriches the quality of life for those within its reach.

**Statement of Purpose**

As a leading American university with international reach, WKU is engaged in internationally acclaimed, student-and-learning-centered academic programs. The WKU experience occurs on several unique campus environments and through an overarching spirit which attracts an intellectually exciting and diverse family of the nation's best students. WKU provides students of all backgrounds with rigorous academic programs in education, the liberal arts and sciences, the health sciences, and business, with emphasis at the baccalaureate and masters levels, complemented by relevant associate and doctoral level programs. The University places a premium on student learning; it is committed to ensuring value in a holistic learning experience through high standards for student achievement and conduct, a strong faculty, technological innovation, personalized attention, broad access, and public accountability for actions and outcomes. Out-of-the-classroom and study abroad experiences enhance learning, promote diversity, and contribute to the success of students.

The University encourages engaged research and public service in support of economic development, quality of life, and improvement of education at all levels. WKU faculty contribute to the identification and solution of key social, economic, scientific, health, and environmental problems. An inspiring and talented faculty promotes a high level of creative activity and diverse scholarship and an entrepreneurial attitude designed to expand knowledge, improve instruction, increase learning, and provide applied solutions toward high-quality service to the state and nation. The University directly supports its constituents in its designated service areas of Kentucky with professional and technical expertise, cultural enrichment, and educational assistance.

Maintaining a campus of distinctive history and character, WKU sustains a student population of increasing quality. It fulfills its responsibility for access through its main and regional campuses, and through extensive distance learning opportunities. WKU recognizes that its mission continues to evolve in response to regional, national, and global changes, and the need for lifelong learning.

**Core Values**

Shared purposes and beliefs drive the decisions and actions of any organization or institution. The core values that undergird the foundations of WKU are reflected in the University's vision, mission, and purpose statements, and in the goals of the strategic plan.

The rich heritage that is WKU's has been built upon a foundation of shared values that have withstood the test of time and the challenges of many changes. These values are deeply embedded in the words of WKU's first President, Dr. Henry Hardin Cherry, as he set forth a vision for this University:

- to be a live school and to impart to its students a burning zeal to do and be something;
- to be progressive, to use modern methods and equipment, but reject all worthless educational fads;
- to let the reputation of the school be sustained by real merit;
- to "ring the rising bell in the human soul" by inspiring all students who come in touch with the work of the institution.

This vision is further reflected in Dr. Cherry's often-quoted reminder that "It's what's above the rim that counts" and in the two University ideals expressed in the University seal: "Life More Life" and the University motto: "The Spirit Makes the Master."

Building upon these long-lasting values, the following core values represent a reaffirmation of the shared purposes and beliefs upon which this strategic plan is built:

- Emphasis on cooperation, teamwork, and mutual respect for individual differences in scholarship, diversity, and culture.
- Expectation for all conduct to be characterized by integrity, honesty, and commitment to high moral and ethical values and principles.
- Commitment to assuring quality of programs, competence of graduates, and opportunities for lifelong learning.
- A view of scholarly endeavors that includes teaching, research, and creative activities as mutually supportive.
- Encouragement of meaningful and active partnerships among students, faculty, staff, and constituents to strengthen the learning environment.
- Nurturing of innovative and creative activities of faculty, staff, and students that advance University mission and goals.
- Dedication to the importance of achieving excellence in all programs and for adding value to the degrees and credentials of our students.

- Commitment to providing a collegiate experience that prepares students to be informed, engaged, and dedicated citizens.
- Commitment to contributing to improved quality of life and economic well-being of Kentuckians, especially those in our primary service area, as well as other constituents and stakeholders.
- Commitment to developing empowered, informed, and responsible learners who recognize both the personal and shared responsibility to actively participate in university life by upholding the principles of the University Creed.

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Department of Public Health
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Bowling Green, KY 42101

## Official Signatures:

Signatures of Master of Science in Environmental and Occupational Health Program Director and authorizing officials of the institution as required:

Ritchie D. Taylor, PhD
Associate Professor and Program Director, EOHS

11/30/2018
Date

William Mkanta, PhD
Associate Professor and Chair, Department of Public Health

11/30/2018
Date

Denis George, PhD
Professor and Interim Dean, College of Health and Human Services

11/30/2018
Date

## Mission, Goals, and Objectives

### a. The program's mission, goals and objectives. The objectives must be measurable and provide a baseline for establishing program effectiveness.

**Mission**

The WKU MS EOHS program prepares highly competent, environmental health practitioners through instruction, research and service, to prevent health disparities related to environmental and occupational exposures, and to discover methods to reduce and control the risk of exposure.

**Goals**

***Goal 1*: Students demonstrate proficiency in EOHS core and optional courses as evidenced by:**

*Objective 1.1*: 80% of students earn a B or higher in each EOHS core course

*Objective 1.2*: 80% of students score a 7 (of 10) or higher on the internship culminating experience

*Objective 1.3*: 70% of preceptors rate interns as a "good" or higher on demonstrating competence in EHOS core competencies

*Objective 1.4*: 80% of students rate their perceived proficiency in each of the core competency areas as 4 (of 5) or higher

*Objective 1.5*: 70% of preceptors rate intern overall student performance as a 4 (of 5) or higher

***Goal 2*: Faculty demonstrate proficiency in course content area as evidenced by:**

*Objectives 2.1*: 90% of required courses (core and discipline) are taught by faculty who have education/training within content area

*Objectives 2.2*: 80% of students rate quality of instruction as 4 (of 5) or higher

***Goal 3*: Provide curriculum that reflects higher-order learning, that is competency-based and relevant to the EOHS workforce, and that emphasizes applied learning, as evidenced by:**

*Objectives 3.1*: At least 50% of the learning objectives in all (100%) required core and optional courses reflect higher-order learning per Bloom's Taxonomy

*Objective 3.2*: 50% of required core and optional courses incorporate applied projects

*Objective 3.3*: 80% of respondents rate program's relevance to EOHS workforce as 4 (of 5) or higher

***Goal 4*: Faculty collaborate in research with one another, students, and other constituents as evidenced by:**

*Objective 4.1*: 50% of faculty research projects involve students

*Objective 4.2*: 50% of faculty presentations involve students

*Objective 4.3*: 50% of faculty research projects involve colleagues within the department

*Objective 4.4*: 50% of faculty research projects involve constituents outside the University

*Objective 4.5*: 10% of faculty research projects are interdisciplinary outside the department

***Goal 5*: Students engage in service activities as evidenced by:**

*Objective 5.1*: Service learning component incorporated into at least 20% of required and optional courses

*Objective 5.2*: 50% of students complete internships that involve service

*Objective 5.3*: 30% of students participate in EOHS or Public Health student organizations

*Objective 5.4*: 50% of students participate in service activity outside of internship or course requirement

***Goal 6*: Faculty provide service to support local EOHS system as evidenced by:**

*Objective 6.1*: 25% of faculty provide one or more direct service activities for a local EHS, industry or safety, workforce, and environment-related organization.

*Objective 6.2*: EOHS program conducts at least one continuing education and/or training workshop for EHS, Industry, or safety-related professions and students per academic year

***Goal 7*: Faculty engage in research as evidenced by:**

*Objective 7.1*: 90% of faculty serve as PI, Co-PI, or Co-I on at least one research project each year.

*Objective 7.2*: 50% of faculty submit at least one grant or contract (internal or external) each year as PI or Co-PI

***Goal 8*: Faculty disseminate research findings as evidenced by:**

*Objective 8.1*: 50% of faculty submit at least one manuscript annually to a peer-reviewed journal and/or submit technical reports for grants and contracts.

*Objective 8.2*: 50% of faculty present at one or more national or regional/state conference or as an invited speaker each year

***Goal 9*: Students engage in research as evidenced by:**

*Objective 9.1*: 80% of students conduct/assist with research outside of course requirement

*Objective 9.2*: 20% of students present at professional conferences

## b. The performance of the program in meeting its mission, goals and objectives.

*i. Curriculum*

The Master of Science in Environmental and Occupational Health Program continues to be guided by core values which includes but not limited to excellence, leadership, discovery, respect, community engagement and service, lifelong learning, diversity and inclusion, elimination of health disparities, and social justice. Because of these core values, we have provided outstanding academic program in the field of environmental and occupational health. Our MS-EOHS program curriculum has been re-designed to meet the highest standard expected of an EHAC accredited programs. In our efforts to maintain an exceptional MS-EOHS curriculum, the department has drafted a formal plan for assessment across the curriculum that includes evaluating delivery contents on knowledge and skills relevant to the current market job demands; developing and revising mission, measurable goals, competencies, and learning objectives; and creating tools for learner assessment. Mapping of courses to competencies and Council for Education in Public Health (CEPH) accreditation guidelines and mapping of competencies to learning objectives continues.

The EOHS program has a stand-alone advisory committee different from the general Master of Public Health (MPH) program. this committee comprise the industry safety managers, state and county environmental health services representatives. The Advisory Committee was formally initiated in 2015 when the program was newly created. The committee greatly participated in the drafting the curriculum. The committee meets once every semester and issues related curriculum, student culminating experience, and resources available to the program that are outside the WKU are core of the all meetings. They also facilitate networking for the students and faculty with the practice.

Many of our past and present students hold professional positions with a large variety of private, not-for-profit and public agencies.

*ii. Faculty*

The WKU Department of Public Health core faculty members are comprised of a highly qualified team with extensive backgrounds in environmental and occupational health, general public health, health promotion, communication, and program planning, and health policy and management practices together with teaching, research, and service. The faculty are committed to teaching, research, and services the university and communities both local and abroad. Currently, we have twelve tenured, six tenure track, six instructors with program support staff and academic service coordinators. The primary faculty members supporting the MS-EOHS degree programs are found in the table below:

Table 1: Core Environmental and Occupational Health Faculty

| Name | Academic Rank | Tenure Status | Graduate Degrees Earned | Institutions where terminal degree was earned | Disciplines in which terminal degrees was earned |
|---|---|---|---|---|---|
| Ritchie D. Taylor | Associate Professor | Tenured | PhD, MS | University of North Texas | Environmental Science |
| Vijay Golla | Professor | Tenured | PhD, MPH, MBBS | University of Iowa | Occupational and Environmental Health |
| Cecilia Watkins | Professor | Tenured | PhD, MS | University of Tennessee | Human Ecology |
| Gretchen Macy | Associate Professor | Tenured | EdD; MS, MPH | University of Kentucky | Kinesiology and Health Promotion |
| Grace K. Lartey | Associate Professor | Tenured | PhD, MA | University of Toledo | Health Education |

| | | | | | |
|---|---|---|---|---|---|
| Edrisa Sanyang | Assistant Professor | Tenure Track | PhD, MPH, MS | University of Iowa | Occupational and Environmental Health |
| Xiuhua Ding | Assistant Professor | Tenure Track | PhD, MS, MD | University of Kentucky | Epidemiology and Biostatistics |
| Colin T. Farrell | Assistant Professor | Tenure Track | PhD, MPH, MA | University of Alabama | Medical Sociology |

The Department of Public Health recruits and retains competent faculty. Since inception in 2015, the MS-EOHS maintains competent faculty for teaching, scholarship and service. In 2015, Dr. Vijay Golla joined the College of Health and Human Services as Associate Dean for Research and Administration with reduced teaching responsibility. Thus, Dr. Jooyeon Hwang was hired in Fall of 2015. She resigned from WKU after three years of service. In Fall 2018, Dr. Edrisa Sanyang joined the department as Assistant Professor of Environmental and Occupational Health.

EHAC requires a strong environmental health practitioner background in faculty teaching environmental health coursework. Drs. Vijay Golla, Richie Taylor, Edrisa Sanyang all have extensive practitioner experience in environmental and occupational health.

EHAC requires faculty capable of teaching the core and discipline-specific areas of public health offered by the program. Specialty areas of the current faculty match the core areas of public health: biostatistics (Dr. Farrell), epidemiology (Dr. Ding), research methods (Dr. Taylor, Dr. Sanyang), community health promotion (Dr. Watkins, Dr. Macy, Dr. Lartey), environmental and occupational health (Dr. Taylor, Dr. Golla, Dr. Sanyang). Each faculty member also has strengths in one or more of the elective areas offered by the MS-EOHS program, with adjunct faculty complementing these areas of expertise.

*iii. Scholarship*

The faculty in the Environmental and Occupational Health Program have been involved in a wide range of primary research and applied research in the areas of environmental health, occupational exposures, workplace health, water resources management, toxicology, infectious diseases, pedagogy, etc. Specific grants received in the past 6 years include:

Table 2: Selected Environmental and Occupational Health Grants Received or Coordinated

| Research Agenda | Funder | Grant Amount | Investigators |
|---|---|---|---|
| Environmental health science training program | CDC/NIOSH Training Project Grant (TPG) | $300,000 | Golla, V.; Taylor, R.; Sanyang, E., Basham, J. |
| Assessment of diesel particulate in fire departments using different exposure metrics | CDC/NIOSH University of Cincinnati Education and Research Center | $6,950 | Hwang, J; Taylor, R, Golla, V |
| Pike county Kentucky Commodity flow analysis | Kentucky Division of Emergency | $34,670 | Taylor, R; Golla, V. |
| Development of the hazardous material information system for emergency response | WKU research and creative activities program | $449,223 | Taylor, R; Golla, V. |
| Building Teaching and Research Capacity at the Food Science Cluster of Western Kentucky University to Control Salmonella in Chicken Products | National Institute of Food and Agriculture | $131,365 | Webb, C; Golla, V |
| Evaluation of Accumulated Contaminants on Firefighter Vehicles | WKU Research and Creative Activities Program | $16,000 | Hwang, J; Golla, V. |
| Total Worker Health in Rural Workplaces: Challenges of Implementation and Follow-up | CDC/NIOSH Central Appalachian Regional Education and Research Center | $12,000 | Watkins, C.; Golla, V |
| Occupational Exposure to Endotoxins in Airborne Particles in Kentucky's Equine Industry | CDC/NIOSH Southeast Center for Agricultural Health and Injury Prevention | $12,000 | Hwang, J; Golla, V |
| Oldham County Kentucky Commodity Flow Analysis | Kentucky Division of Emergency Management | $27,559 | Taylor, R; Golla, V. |
| Safety and Compliance Grant Program at WKU | JJ Keller and Associates Inc. | $27,55 | V. Golla |
| Commodity Flow Study of Hazardous Material Transport in Shelby County, Kentucky | Kentucky Division of Emergency Management | $38,215 | Taylor, R; Golla, V. |
| Hazardous Material Information System for Emergency Response: HMISFER Project | Commonwealth of Kentucky Office of Commercialization and Innovation | $100,00 | V. Golla; R. Taylor |
| Kentucky Worksite Wellness Assessment Grant | Kentucky Department for Public Health | $28,105 | Watkins, C.; Golla, V |

| | | | |
|---|---|---|---|
| Commodity Flow Study of Hazardous Material Transport in Henderson, Daviess, Madison, Rowan, and Montgomery Counties, Kentucky | Kentucky Division of Emergency Management | $96,454 | Taylor, R; Golla, V. |
| Watershed Health Education for Storm water Management | City of Goodlettsville | $9,954 | Taylor, R; Basham, J; Macy, G. |
| Stream Corridor Assessment | City of Goodlettsville | $9,950 | Taylor, R; Basham, J |
| Assessment of Diesel Particulate Matter Exposures in Fire Stations. | City of Bowling Green, KY | $2,574 | Taylor, R; Basham, J; Golla, V. |
| Turbidity Water Quality Study to Assess Runoff from Construction Sites. | City of Goodlettsville | $3,819 | Taylor, R; Basham, J |
| Crystalline Silica Exposure Assessment | Louisville Paving and Construction (LP&C), Louisville, KY | $15,000 | Taylor, R; Basham, J; Golla, V. |
| Environmental Permitting, Compliance, and Sustainability Assessment. | Oscarware, Inc., Bonnieville, KY | | |
| Center for Environmental and Workplace Health, | Internal funding through Western Kentucky University, College of Health and Human Services | $269,510 | Taylor, R; Watkins, C; Hwang, J; Macy, G; Basham, J |
| Watershed Health Education for Stormwater Management | City of Goodlettsville, TN | $9,995 | Taylor, R; Basham, J |
| Watershed Health Assessment in the City of Portland, TN | City of Portland, TN | $9,994 | Taylor, R; Basham, J |
| Evaluation of accumulated contaminants in firefighter vehicles | Internal Funding through WKU RCAP Grant | | Hwang, J; Golla, V; Taylor, R |
| Becoming a Tobacco-Free Campus in Kentucky | American Cancer Society | $20,000 | Watkins, C; Macy, G |
| Assessing attitudes, perceptions, and behaviors related to tobacco use and policy among faculty, staff and students | Internal Funding through WKU Grant | $1,500 | Watkins, C; Macy, G; Ickes, M |
| Global Environmental and Occupational Health (GEOHealth) needs assessment | National Institutes of Health/Fogarty International (FIC/NIH) | $400,000 | Sanyang, E; Cook, T; Fuortes, L |
| Epidemiology of Injuries | Road Traffic Injury Research Network | $44,095 | Sanyang, E; Bass, P; |

| | | | |
|---|---|---|---|
| Blood Lead Levels among Occupationally Exposed Workers | University of Illinois Springfield Competitive Grant | $10,000 | Egiebor, E; Sanyang, E |

*iv. Service*

The Department of Public Health and by extension the Environmental and Occupational Health program is dedicated to providing service that benefits society within the community of Bowling Green and other neighborhood communities, the United States and the broader world. The service provided by our faculty members is consistent with the WKU mission of Leading American University with International Reach. Faculty are rewarded for services that involve application of knowledge for the benefit of the people of Kentucky and beyond.

# CURRICULUM

## a. The methods used for evaluating responsiveness to the mission, goals and objectives.

*i. The system for routine review of course content and curriculum structure.*

Every six years, major programs at both the undergraduate and graduate level undergo a process of comprehensive academic program review. Program coordinators and program faculty prepare structured self-studies addressing programs' contributions to academic quality and student learning, as well as broader institutional and statewide educational priorities. Self-studies are submitted to the Department Head, then to the College Dean's Office, and then to the Office of the Provost. These self-studies are then reviewed by a standing committee of faculty established by the Provost and Vice President for Academic Affairs, which includes representatives from each of the academic colleges and University Libraries. The findings and recommendations of the review committee are shared with program coordinators and faculty, the department head and college dean, the Provost and Vice-President for Academic Affairs, and the Council for Postsecondary Education (CPE).

Academic Program Review (APR) builds upon the annual process of student learning outcomes assessment. In addition, it provides academic programs the opportunity to analyze and reflect upon data trends in enrollment, student success, resourcing, and other quantitative and qualitative performance measures. The objective is continuous improvement of academic programs, and APR is a key element of WKU's institutional effectiveness processes.

*ii. The methods for evaluating student accomplishments and knowledge and skills developed.*

We evaluate student accomplishments via several methods. All MS EOHS students are required to take six core courses and four or five electives (depending on the option selected). Competencies and learning objectives covered in each course are typically assessed by performance on class assignments, examinations, class discussion, and projects (including poster and oral presentations). Although all course instructors establish their own criteria for determining the course grade, we continue to work toward a unified assessment of all courses. All projects/term papers must meet style guide for format, citations and references, and are scanned through Turnitin for plagiarism prior to grading. Each student must complete either thesis, internship, or applied practice/research experience.

*iii. The methods used by students to evaluate the courses, faculty and program.*

Students evaluate each course and faculty through a university standardized evaluation tool. Faculty formally respond to student evaluations during the annual performance evaluation and all stages in the tenure and promotion process. Department committees, department head,

college dean, and Provost and Vice-President for Academic Affairs review faculty evaluations and/or portfolios each year and/or during strategic points during the tenure and post-tenure review process.

*iv. The program's effectiveness in meeting the educational objectives*

We continue to have approval through university governance for online and on campus delivery of the graduate degrees and certificates; the department has aligned the EOHS curriculum with CEPH accreditation guidelines, streamlining the electives available to graduate students; maintaining six faculty positions with practitioner experience in environmental and occupational health and worksite health promotion to strengthen the practitioner base of the MS and the certificate programs; ongoing research in exposure assessment, water quality and road environment exposure research; maintenance of continuous course rotation which maximizes the number of core and elective courses the program with sufficient frequency to allow timely graduation; and demonstrating that students meet the competencies prior to graduation as evidenced by successful completion of thesis, internship, and field practice, which are evaluated with rubrics based on the competencies.

*v. Projections for future achievement and recommendations for future changes and activities.*

The program is working towards making all MS students complete a thesis. This approach will put a lot of emphasis on the sciences and being well-prepared students with research-based competencies.

## b. A curriculum organized and structured to integrate and sequence its content in an orderly and logistic fashion.

*i. Curriculum requirements indicating those met within the program and those met outside the program.*

The curriculum requires the following core courses: Epidemiology; Principles of Environmental Health; Principles of Occupational Health and Safety; Biostatistics; Environmental Management and Risk Assessment; and Environmental Toxicology. The following electives are also offer: Industrial Hygiene; Watershed Management and Science; Air Quality Management; Hazardous and Solid Waste; Program planning; Communication and Health Education Techniques; and Health Promotion in the Workplace. All these are offered in the program with instructions provided by faculty in the program and adjuncts.

Table 3: Requirements for MS Environmental and Occupational Health Science

| Course Nr. | Course Name | Instructor |
|---|---|---|
| **Required Program Core Course** | | |
| PH 520 | Biostatistics for Public Health | Collin Farrell |
| PH 582 | Epidemiology: Practice and Theory | Xiuhua Ding |
| PH 584 | Principles of Environmental Health | Edrisa Sanyang |
| EOHS 577 | Environmental Toxicology | Ritchie Taylor |
| EOHS 550 | Principles of Occupational Safety and Health | Gretchen Macy |
| EOHS 560 | Environmental Management and Risk Assessment | Edrisa Sanyang |
| **Culminating Experience – (Thesis 6 hrs or Internship 3 hrs or Applied Exp. 3 hrs)** | | |
| PH 599 | Thesis | Ritchie Taylor |
| EOHS 546 | Internship | Ritchie Taylor |
| PH 588 | Applied Experience | Ritchie Taylor |
| **EOHS Electives – (12 or 15 credit hours)** | | |
| EOHS 502 | Health Promotion in the Workplace | Cecilia Watkins |
| EOHS 503 | Health Assessment in the Workplace | Gretchen Macy |
| EOHS 510 | Watershed Management and Science | Ritchie Taylor |
| EOHS 570 | Industrial Hygiene | Vijay Golla |
| EOHS 571 | Air Quality Management | John Boren |
| EOHS 572 | Environmental and Occupational Health Epidemiology | Vijay Golla |
| EOHS 580 | Solid and Hazardous Waste Management | Ritchie Taylor |
| EOHS 595 | Public Health Management of Disasters | Edrisa Sanyang |
| **Other Electives** | | |
| PH 501 | Research Methods | Edrisa Sanyang |
| PH 575 | Health Education/Promotion Planning | Gretchen Macy |
| PH 576 | Education and Communication Techniques | Grace Lartey |
| PH 587 | Health Behavior | Gretchen Macy |
| PH 620 | Advanced Biostatistics | Collin Farrell |
| PH 630 | Advanced Epidemiology | Xiuhua Ding |

*ii. The degree requirements*

The Master of Science program in Environmental and Occupational Health degree requires successful completion of 36 semester hours of coursework; 24 hours of required core courses, including a 3-6-hour internship/thesis/practice experience plus 12 to 15 hours of electives. Students may select to do thesis, internship, or practice experience. Students must consult with their adviser before their first semester registration to develop an educational plan and choose the appropriate elective hours.

*iii. The syllabus for each course integral to the program of study*

Please see syllabi for all the core courses in the MS EOHS degree (Appendix 1: EOHS Core and Elective Course Syllabi).

## c. A matrix of course requirements (course name, number, credit hours and instructor) linked to accreditation competencies:

1. Please note that all courses are 3 credit hours.
2. Please see table 2 (above for course names and instructors

Table 4: Mapping of MS-EOHS Competencies

| EHAC Competency Area | Course Number(s) |
|---|---|
| Analytical skills | PH 520; PH 582; PH 620; PH 630 |
| Statistical skills | PH 520; PH 620 |
| Research Methods | PH 501; EOHS 572; PH 599; PH 620 |
| Communication (Written and Oral) | PH 584; EOHS 560; EOHS 595; EOHS 502; EOHS 503; PH 575; PH 576 |
| Administrative skills | PH 575; EOHS 502; EOHS 560; EOHS 595 |
| Skills and knowledge of natural sciences (including biological sciences, chemistry and other sciences) | PH 584; EOHS 577; PH 520; EOHS 560; EOHS 588; EOHS 570; EOHS 550; EOHS 510; EOHS 571 |
| Environmental and public health science knowledge and skills | PH 584; EOHS 577; PH 520; EOHS 560; EOHS 588; EOHS 570; EOHS 550; EOHS 510; EOHS 571; EOHS 580 |
| Risk assessment, risk communication, and risk management | EOHS 560; PH 584; EOHS 595; EOHS 502; EOHS 503; PH 575; PH 576 |

## d. Culminating Experience

*i. Requirements.*

Culminating Experience is where students to choose either Thesis or Internship or Applied Experience.

If students decide to take thesis, they are required complete it according to the requirements of the WKU Graduate School. A committee of at least three (3) faculty members will direct each thesis. Students will be required to develop a proposal, defend the proposal, complete thesis research, write the thesis document, and then present the thesis to faculty and students. Additionally, each student will orally defend their thesis before their graduate committee.

For internship, students complete an internship experience of 400 hours. As part of this option, each student must develop a portfolio that details the internship experience. Each portfolio will follow a rubric of required elements. The graduate advisor, in conjunction with the EOHS internship coordinator, must approve the internship. Internships will require that the student keeps a daily log of activities, compiles weekly summaries, and documents the major objectives associated with the internship. The portfolio will include all internship documentation and the final presentation for the internship. Students completing the internship are required to make an oral defense of their portfolio to their graduate committee and present their work to faculty and students. Each portfolio must follow a rubric of required elements.

*ii. List of culminating experiences (theses, portfolios, written exams, professional papers, etc.) for the past two years.*

Thesis research; Environmental & Occupational Health Science Internship; Public Health Capstone.

*iii. Student thesis and paper titles and authors for the past two years.*

Table 5: Student thesis and paper titles from 2015 to 2018

| Student Thesis and Paper Titles | Name of student | Year |
|---|---|---|
| Assessment of Ergonomics in Indian Dental Practice: A Workplace Analysis | Gadde, Divya | 2018 |
| Examining Factors Predicting Perceived Impact of Designated Use and Tobacco-free Policies on a University Campus | B. Gates | 2018 |
| Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults | A.K Dispennette | 2018 |
| Examining Physical Activity Among College Students Using the Theory of Planned Behavior | E. Aghenta | 2018 |
| The "Total Worker Health" Concept: A Case Study in a Rural Workplace. | R. Basham | 2017 |
| Evaluation of E. Coli Surrogates for Produce Safety and Public Health Protection | Givan, Ethan | 2015 |
| Noise Assessment of Workers in a Bedding Manufacturing Facility | Obuhoro, Olosengbuan | 2015 |
| Watershed Health Assessment of the Mansker Creek Watershed and Evaluation of *E. coli* Surrogates for Produce Safety | Rebecca Lauth | 2015 |
| Watershed Health Assessment of the Mansker Creek Watershed | Matthew Shirley | 2015 |
| Evaluation of *E. coli* Surrogates for Produce Safety | Ethan Givan | 2015 |
| Analysis of the Mercury Fish Consumption Advisory for Public Health Protection in Kentucky | Joshi, Awijeeta | 2015 |

| | | |
|---|---|---|
| Evaluation of Foodborne Illnesses in the Barren River District Kentucky from 2003 through 2011 | Yang, Qi | 2015 |
| Evaluation of Atrazine Contamination of a Community Water Supply in Kentucky | Ruizi, Ge | 2015 |
| A Retrospective Analysis of Lung Cancer Demographics and Outcomes in the United States | Sagi, Vishwaneth | 2015 |
| Assessment of Estrogenic Compounds in a Wastewater Treatment Plant Influent and Effluent | Hunter, Alexandra L., | 2015 |
| Risk Assessment of Hazardous Materials Transported by Rail through the WKU and Bowling Green, Kentucky Corridor | Center, Rebecca | 2015 |
| Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity | R. Roka | 2015 |

## FACULTY

### a. List faculty teaching courses fulfilling accreditation competency requirements indicating if faculty members are full-time or part-time (please put vitae in appendix).

Table 6: List of faculty and Current Teaching Assignments

| Faculty | Status | Courses* | EHAC Competency Areas** |
|---|---|---|---|
| Dr. Vijay Golla | Full-time | EOHS 570: Industrial Hygiene | Env. Science |
| | | EOHS 572: Env. & Occ. Health Epidemiology | Env. Sc. and analytic skills |
| Dr. Ritchie Taylor | Full-time | EOHS 577: Environmental Toxicology | Env. Sc. & Analytic skills |
| | | EOHS 510: Watershed Mgt. and Science | Env. Science |
| | | EOHS 580: Solid and Hazardous Waste Mgt. | Env. Science |
| | | PH 599: Thesis | All EHAC Competencies |
| | | PH 546: Internship | All EHAC Competencies |
| Dr. Cecilia Watkins | Full-time | EOHS 502: Health Promotion in the Workplace | Risk comm. & risk Mgt. |
| Dr. Gretchen Macy | Full-time | EOHS 560: Principles of Occ. Safety and Health | Env. Sc.& analytic skills |
| | | EOHS 503: Health Assessment in the Workplace | Risk comm. & risk Mgt.; communication |
| | | PH 575: Health Education/Promotion Planning | Risk comm. & risk Mgt. |
| | | PH 587: Health Behaviors | Risk comm. & risk Mgt. |
| Dr. Edrisa Sanyang | Full-time | PH 584: Principles of Env. Health | Env. Sc.; analytic skills; risk comm. |
| | | EOHS 560: Env. Mgt. and Risk Assessment | Env. Sc.; analytic skills; risk comm. |
| | | EOHS 595: Public Health Mgt. of Disasters | Env. Sc., risk com & mgt. |
| | | PH 501: Research Methods | Analytics skills; statistical analysis; research methods |
| Dr. Collin Farrell | Full-time | PH 520: Biostatistics for Public Health | Analytic skills; statistical analysis |
| | | PH 620: Advanced Biostatistics | Analytic skills; statistical analysis |
| Dr. Xiuhua Ding | Full-time | PH 582: Epidemiology: Practice and Theory | Analytics skills; statistical analysis; research methods |
| | | PH 630: Advanced Epidemiology | Analytics skills; statistical |
| Mac Cann | Adjunct | Air Quality Mgt. | Env. Sc. & Analytic skills |
| Dr. Gracey Lartey | Full-time | PH 576: Ed. & Communication Techniques | Risk comm. & risk Mgt. |

**All courses are 3 credit hours*

***Course may fit more than competency area outlined by EHAC Graduate Guidelines. Competencies listed are main focuses of the course.*

### b. List faculty working on research with environmental health science master's students (Appendix 2: EOHS Faculty Curriculum Vitae).

The WKU MS-EOHS degree is both practitioner and academic focus with numerous opportunities for students to do field environmental research (mostly full-time students) and industry-based culminating experiences (mostly part-students). Students interested in research are encouraged to join a faculty in non-course related field/translational research. The following is a list of students/faculty collaborations:

Table 7: List of faculty and selected research involving MS-EOHS students

| Students (underlined) and Faculty Mentors | Research Activity |
|---|---|
| R. Roka, A. Michimi, & G. Macy (2015) | Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity. |
| G. Macy, A. Murphy, M. Ickes, C. Watkins & B. Gates | Examining Factors Predicting Perceived Impact of Designated Use and Tobacco-free Policies on a University Campus |
| A.K Dispennette, K.J Crandall, M. Shake, M, Schafer, & G. Macy | Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults |
| E. Aghenta, G. Macy, G. Lartey, & D. Shearer | Examining Physical Activity Among College Students Using the Theory of Planned Behavior |
| R. Roka, A. Michimi, & G. Macy | Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity |
| E. Aghenta, G. Macy, G. Lartey, & D | Shearer. "Using the Theory of Planned Behavior to Explain Physical Activity Among College Students |
| M.Perkins, E. Aghenta, G. Lartey, & G. Macy. | Self-esteem among south central Kentucky college students |
| Dispennette, K.A., Crandall, K.J., Schafer, M., Shake, M., Macy, G., & Clark, B. | Effects of Bingocize® on quality of life and fall risk in community –dwelling older adults. Midwest |
| G. Macy, A. Murphy, M. Ickes, C. Watkins, & B. Gates | Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy. |
| B. Gates, G. Macy, C. Watkins, A. Murphy, & M. Ickes | Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies. |
| B. Gates, G. Macy, C. Watkins, A. Murphy, & M. Ickes | Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies. |

| | |
|---|---|
| A.K Dispennette, K.J Crandall, M. Shake, M, Schafer, & G. Macy | Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults |
| B. Gates, G. Macy, C. Watkins, A. Murphy, & M. Ickes | Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies |
| Jonathan Suhl, Vijay Golla, Jessica Rinsky, and Claudia Hopenhayn. | Atrazine in Kentucky Drinking Water: Inter-Method Comparison of U.S. EPA Analytical Methods 507 and 508.1. |
| Jessica L. Rinsky, Claudia Hopenhayn, Vijay Golla, Steve Browning, and Heather M. Bush | Atrazine Exposure in Public Drinking Water and Preterm Birth. Public Health Reports |
| Vijay Golla, Jerrod Nelms, Ritchie Taylor, Sandeep Mishra. | Pesticide Concentrations in Drinking Water from Farm Homes: Variation between Community Water Supply and Well-Water |
| Stephen J. Reynolds, Jason Nakatsu, Marvin Tillery, Thomas Keefe, John Mehaffy, Peter S. Thorne, Kelley Donham, Matthew Nonnenmann, Vijay Golla, Patrick O'Shaughnessy. | Field and Wind Tunnel Comparison of Four Aerosol Samplers Using Agricultural Dusts |
| Cecilia M. Watkins, Grace K. Lartey, Vijay Golla, Jagdish Khubchandani | Worker's Perception: Environmental Factors Influencing Obesity at the Workplace |
| Patrick T. O'Shaughnessy, Julie Lo, Vijay Golla, Jason Nakatsu, Marvin I. Tillery, and Stephen Reynolds. | Correction of Sampler-to-Sampler Comparisons Based on Aerosol Size Distribution |
| Aditya Stanam, Vijay Golla, Shradha J. Vasa, Ritchie D. Taylor. | Exposure to Computer work and Prevalence of Musculoskeletal Symptoms Among University Employees: A Cross- Sectional Study. |
| Hwang, J., R. Taylor, W. Gilbert, C. Cann, and V. Golla. | Assessment of diesel particulates in fire departments using different exposure metrics: Pilot Study |
| Cook, K.L, E.C. Givan, H.M. Mayton, R.R. Parekh, R.D. Taylor, and S.L. Walker. | Using the agricultural Environmental to select better surrogates for foodborne pathogens associated with fresh produce. |
| Givan, E., K. Cook, R.R. Parekh, J. Simmons, K. Sistani, and R. Taylor. | Environmental E. coli as surrogates for foodborne pathogen contaminants associated with produce and agricultural soils |
| Gadde, D., V. Golla, R.D. Taylor, and X. Ding. | Assessment of ergonomics in Indian dental practice |
| Shirley, M., R. Lauth, and R. Taylor. | Watershed Health Assessment for a Small MS4 in the Mansker Creek Watershed |
| Taylor, R., M. Shirley, and R. Lauth | Watershed health as a model for human health protection and water quality |
| Edrisa Sanyang; Egbe Ergibor; Ankitkumar Patel | Blood Lead levels among occupationally exposed workers |
| Bass P, Sanyang E, Mau-Roung L | Risk Factors for Violent Injuries and Their Severity Among Men in The Gambia |

### c. Curriculum vitae (please put vitae in appendix) of program faculty.

Curriculum Vitae of all program faculty are in Appendix 2 – EOHS Faculty Curriculum Vitae.

# ADMINISTRATION

## a. The organization of the department and its location within the university hierarchy.

The Master of Science in Environment and Occupational Health (MS-EOHS) is administered by the Western Kentucky University, Department of Public Health. Administratively, Department of Public Health is housed under the College of Health and Human Services (CHHS). The College of Health and Human Services (CHHS) was established in August 2002, and consists of eight academic units: Allied Health; Applied Human Sciences; Communication Sciences and Disorders; The School of Kinesiology, Recreation and Sport; The School of Nursing; Physical Therapy; Public Health; and Social Work. The disciplines in the college have their roots in outreach to the community; they all prepare students for their professions by engaging them in activities within the community that applies the theories and concepts learned in the classroom for a comprehensive understanding of the issues. Students are required to complete clinical experiences, field work, or internships through one of the many affiliation agreements with a myriad of health and human service agencies in our region. Two nationally recognized mobile health and wellness units provide ways for students to apply their newly acquired skills in the provision of prevention services to residences in our region. CHHS is dedicated to improve the quality of life in the community through education, service, collaboration, leadership, and scholarship.

Western Kentucky University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award associate, baccalaureate, masters, specialist, and doctorate degrees. The university governed by a Board of Regents, which meets on regular basis. The University is subject to federal and state laws and regulations. The Board is the final authority of the University. It exercises control of fiscal resources as appropriate. The Board is responsible for administration and governance of the University.

The governing body of Western Kentucky University is an 11-member Board of Regents. Eight of the members are appointed by the Governor from among nominees submitted by a nominating commission. These members serve up to two six-year terms. Faculty and staff representatives are elected by their peers to three-year terms. The student representative is the President of the Student Government Association and is elected to a one-year term. All members have voting privileges.

## b. The mechanisms providing stability and continuity of administrative support.

To ensure stability and continuity of MS program, WKU provides well-structured financial and non-financial mechanisms. The university's operating budget includes unrestricted and

restricted funds. Unrestricted funds include state funds, tuition revenue, and institutional funds. Restricted funds include revenue from grants and contracts, private gifts, endowment income, and auxiliaries. WKU receives appropriated funds from state government for its day-to-day operations. These funds, along with student tuition, pay for most faculty and staff salaries, utilities, books, supplies, and equipment. The university is transitioning to the RAMP (Resource Allocation, Management and Planning) model, which entails diligently reframing budget as a way to develop new revenues, promote desired activities, and funnel resources to strategic priorities.

# RESOURCES

## a. The program capacity for graduate students.

WKU graduate programs students' enrollment are traditionally small, focused on active and collaborative learning pedagogies. The general public health core course capacity limits the number of students admitted to all degrees offered by the Department of Public Health. Currently, one section of each of the general public health courses are offered both fall and spring semesters and are rotated between on campus and online delivery each semester. Therefore, admissions each year are restricted to a combined degree admission of 25 to 35 students. It is hard to predict capacity to admit new students because we are not able to predict whether students will be full-time (WKU definition for graduate students at 9 credit hours/semester) or part-time students from semester to semester, with students moving between the two categories. The MS-EOHS program has the following part-time and full-time students:

Table 8: MS-EOHS Student Enrollment Since 2015

| Students Enrolled | Full-time | Part-time | Total |
|---|---|---|---|
| Fall 2015 | 16 | 1 | 17 |
| Fall 2016 | 17 | 2 | 19 |
| Fall 2017 | 12 | 4 | 16 |
| Fall 2018 | 10 | 4 | 14 |

## b. Identification of physical facilities including classrooms, laboratories, offices.

Offices and classrooms

The Department of Public Health (DPH) is housed in the 5500 sq. ft. wing of Academic Complex, the home of most College of Health and Human Services faculty and administrative staff. The wing contains 20 individual faculty offices plus a large shared office space for part-time and adjunct faculty utilized by the undergraduate programs. In the Fall of 2015 an additional 5 offices were renovated on the second floor of Academic Complex. This space added an additional 624 sq. feet of office space for the DPH. This new space housed the Environmental and Occupational Health Faculty and Graduate Assistants. This renovation also provided a small conference room for faculty to meet as needed. In the first floor of Academic Complex, there are three additional work areas for graduate assistants and a common study/lounge area for students in the lobby. Additionally, there is a conference room/lounge, work-room for

faculty and staff, administrative offices for the department head and office associates, and three storage areas. All full-time faculty have their own office.

Department of Public Health has one dedicated classroom in Academic Complex that is not included in the square footage noted above. The program uses other classrooms within Academic Complex and in neighboring buildings. Classes at WKU are scheduled centrally using a database (Astra Schedule) that matches the maximum enrollment in the course and room type preference with available classrooms. Each classroom is equipped with a smart lectern and includes a computer, projector, document camera, and audio and visual equipment. University computer labs are available for student use, as well as a computer lab and classroom in the College of Health and Human Services. Additionally, a number of software applications are available on lab computers that are used by EOHS students. These include, but are not limited to, SPSS, SAS, ArcGIS, Microsoft products, and environmental and occupational health software installed on Department of Public Health computers.

Laboratory

The program also has storage for laboratory supplies. Both the EOHS laboratory and store are located in the first floor of the AC building. In 2017, the program established the Center for Environmental and Workplace Health (CEWH). The center is located in the south campus at the WKU Centers for Research and Development building.

The EHS Lab is a high-quality resource base that includes equipment storage, laboratory bench space and an associated computer lab for students to engage in occupational safety and health, industrial hygiene, and environmental management problem solving. Equipment and information that mutually benefits faculty and students is available. The primary purpose of the lab is to assist our students in learning the fundamental skills of quantitative and qualitative IH exposure risk assessment as well as the basic processes involved in defining and researching occupational and environmental health problems. This laboratory is also extremely valuable to students and faculty engaged in project work as they assist regional industries, municipalities, and communities in obtaining and evaluating information needed to solve occupational health and environmental problems in their particular environment. An associated EHS student computer lab consists of four networked computers with associated hardware. The computers are outfitted with a variety of software, databases, and on-line capabilities aimed at allowing the students to research health hazard information relating to specific industries, processes or chemicals. Various sources of information are available including software, Internet-based resources, databases, ACGIH TLV's and BEIs, NIOSH Manual of Analytical Methods and Pocket Guides, NIOSHTIC-2, etc.

The lab facilities enable students to explore the many occupational health information sources available to them and to develop innovative skills in acquiring the qualitative information needed to define and ultimately evaluate and control a variety of occupational safety and health problems. Thus, in addition to the specific information gained from the assessment of the given situation, students learn how to obtain qualitative information on hazards of specific industries, how to utilize the resources available to assess the toxicology of a given material, how to do research on the hazards of a given process and how to work and communicate with other environmental health and safety professionals.

Specific equipment available to this program include those previously purchased through funding of a National Science Foundation Instrumentation and Laboratory Improvement grant, the Center for Environmental and Workplace Health, and the Institute for Rural Health Research and Development. Additional equipment grants or awards have been obtained from individual vendors (SKC Inc.) as well as from external and internal faculty grants. Collectively, the EOHS faculty has assembled an impressive array of sampling and monitoring equipment and instrumentation that include traditional IH instrumentation, such as personal sampling pumps, noise dosimeters and sound level meters, octave band analyzers, heat stress meters, air velocity meters, IR and NIR measurement devices, etc. Also, the EHS Lab possesses more sophisticated field instrumentation Dusttrak aerosol monitor, direct-reading aerosol monitors, an Optical Particle Sizer, a MIRAN Saphire, and a Turner Field Fluorometer. It must be emphasized that the EHS equipment holdings are not only discussed and utilized in laboratory exercises, but are used by faculty and students in real world applied research and field service learning experiences. The following is a list of EHS Lab equipment that is currently available to undergraduate EHS and EOHS graduate students at WKU. Detail selected list of Environmental and Occupational Health Laboratory Equipment is in Appendix 4: Environmental & Occupational Health Science Program Equipment Holdings (Selected)

### c. Identification of equipment, supplies, and library materials including internet resources.

WKU Libraries

The WKU Libraries support the Environmental and Occupational Health Science program through both resources and services. A library liaison is assigned to work with the program, offers instruction in a variety of formats, maintains an online guide to environmental and occupational resources, and offers one-on-one research consultations to assist students with their research. WKU Libraries offers on-site and remote services through the main library, Helm-Cravens Library, and branch libraries in Glasgow, Owensboro, and Elizabethtown. The main library is open daily until midnight when fall and spring classes are in session; library

hours are modified for summer, holidays, and breaks. WKU Libraries has approximately 800,000 cataloged volumes and 3,800 serials subscriptions.

Current serials subscriptions supporting the MS-EOHS program have been converted to online-only format; monograph orders are split between print and electronic format. Off-campus access to e-books and e- journals is enabled by logon via the same username/password used to access other student services. A suite of EBSCOhost bibliographic databases, as well as Web of Science, the Cochrane Library, Digital Dissertations, and many other resources, are accessible on-and off-campus. PubMed LinkOut and Google Links facilitate off-campus access to PubMed and Google Scholar. Access to monographs and other library holdings is also provided by Primo One-Search, which incorporates the library's book catalog.

The EOHS program, together with other CHHS programs, is served by a full-time Health Sciences Librarian, who graduated from our MPH program. She is available by phone, email, or appointment for individual, group, or classroom assistance. Last year she taught more than 50 instructional sessions to approximately 1000 individuals on use of the library. A help desk located in the Helm-Cravens Information Commons is also staffed daily until 10 p.m. when classes are in session; assistance is provided in person, by phone, email, or IM.

Three computer labs in the main library have approximately 100 workstations offering technical assistance and printing at no charge to WKU-affiliated individuals. Articles and books held by WKU Libraries are delivered to faculty offices upon request. An extended campus office delivers books and articles to extended campus students. Articles and books (except for textbooks) not held by WKU may be obtained by self-service online interlibrary loan at no cost to WKU-affiliated individuals. The average turnaround time for electronic delivery of article requests is less than two days.

Information and Technology Services

WKU's Information Technology Services is responsible for management of the university's computing services and other academic and instructional technologies. The Information Technology Services functionally includes administrative computing systems, university data center, networks, micro- computing, student computer labs, Student Technology Resource Center, distance learning systems including ITV and Blackboard, faculty/students/staff technology training, and research support, including online survey software.

Faculty and Staff Computers – New first-time, full-time, permanent faculty members are provided a new computer upon hire. Existing faculty will have their computer equipment replaced based on age of equipment and/or specific needs of the department as determined by

the college's Dean, or representative chosen by the Dean. Academic Affairs determines which faculty is included in the new and existing faculty lists. When eligible, almost all faculty choose to accept a new computer and it is rare they defer to the next year. The replacement policy can be accessed online at http://www.wku.edu/policies/docs/86.pdf. The staff is typically provided computers, often through faculty computer rotations.

Student Technology Centers – WKU provides Student Technology Centers (general usage computer labs for all students) at seven locations on the main campus. There is also one Student Technology Center (STC) at each regional campus location, and another at South Campus location. STC labs are equipped with the latest hardware, software, scanners, and laser printing. The Mass Media and Technology Hall lab on the main campus is open 24 hours a day, 7 days a week during fall and spring semesters.

Wireless Access – WKU provides wireless network access in all WKU buildings and many outdoor locations via three available networks. "WKU-SECURE" offers a higher level of security than other WKU wireless networks. "WKU-WIRELESS" is an alternate wireless network for devices that can't support the higher level of security. "WKU-GUEST" does not require authentication, and offers a limited speed, restricted network for guests of the University.

Technical Support – Technical support is available through a centralized helpdesk. Remote access to computers on and off campus enables rapid resolution of many computing issues. The helpdesk is staffed 7 a.m. through 8 p.m. weekdays, and 11:30 a.m. through 8 p.m. on weekends.

College of Health and Human Services has an IT position which is shared 50/50 with the university central tech support system. Keanan Stewart currently holds this position and is responsible for helping faculty in CHHS – including DPH – with their technical needs. He supports all public health faculty technical needs and his office is located within the DPH.

Technology Resources (TRC) – TRC is a hands-on digital media facility for students, faculty and staff. Specialized equipment and software are available, along with a knowledgeable support staff. The TRC provides resources to develop multimedia projects for course work.

### d. Identification of support staff

The WKU Public Health Department has two non-faculty staff (Office Coordinator, and Office Associate). They provide joint administrative services and functions to the Departments of Public Health and programs within the department including general office support and works on students' admission, progress, and graduation paperwork; organizes important meetings

and faculty travel; and prepares paperwork for recruitment of new faculty. The EOHS program has several Graduate Assistants who support faculty in research and teaching responsibilities.

### e. Identification of off-campus resources available to the program.

Western Kentucky University is located in rural setting with huge opportunities for a variety of community, farming, industry, and services in environmental and workplace health. For our local students, we have networking throughout the state, county, and city environmental health agencies as well as local manufacturing industries. These great a lot of opportunities for linking didactic lectures to field experience where faculty use the local industries and environmental health services for class field experience. They also provide internship sites for the EOHS students.

### f. Identification of research or special projects grants.

Western Kentucky University prides itself as prioritizing intervention research and teaching first for our faculty, then other academic functions. To that effect, the MS-EOHS program faculty have successful teacher-scholars. The table below details some of the recent research activities. A comprehensive list of faculty peer-review publications and presentations is found in Appendix 3.

The scholarly activities of our faculty are consistent with the Carnegie Foundation Report, which provides a suitable framework for assessing scholarship in the context of a primarily teaching public affairs institution. The report divides scholarship into four categories: discovery, integration, application, and teaching. Discovery involves original intellectual work such as in basic research; integration involves making connections among and across disciplines and educating those who are not disciplinary specialists; application involves inquiry into the connection between theory and practice and commonly called applied research; and scholarship of teaching involves constant intellectual engagement in learning in the substantive areas of one's teaching and in the processes and methods of teaching as a profession. Our scholarly activities have been in the categories of discovery, integration, application, and teaching.

With some internal funding opportunities like the Research and Creative Activity Program (RCAP), our faculty compete for and win pilot grants which can later build for bigger extramural grants. The city and state authorities also provide some funding opportunities for local research. The Office of Sponsored Programs (OSP) at Western Kentucky University is a service unit that assists the faculty and staff at WKU in obtaining external funds. They offer assistance across the entire spectrum of sponsored programs activities, from identifying a potential source of funding to reviewing the terms and conditions of awards made to the

institution. The following is a list of funding received by the faculty who teach the MS-EOHS program:

**CDC/ NIOSH Training Project Grant (TPG)** **$300,000**
Environmental Health Science Program at Western Kentucky University
Golla, V. (PI), Taylor, R. (Co-PI)
07/2016 – Present

**CDC/NIOSH University of Cincinnati Education and Research Center** **$6,950**
Assessment of Diesel Particulates in Fire Departments using Different Exposure Metrics
Golla, V (Co-I), Taylor, R. (Co-I), Hwang, J (PI)
05/2017 – Present

**Kentucky Division of Emergency Management** **$34,670**
Pike County Kentucky Commodity Flow Analysis
Golla, V. (Co-I), Taylor, R (PI) 12/2017 – Present

**WKU Research and Creative Activities Program** **$15,936**
Development of the Hazardous Materials Information System for Emergency Response (HMISFER) Golla, V (Co-PI), Taylor, R (PI) 05/2016 – 12/2017

**National Institute of Food and Agriculture** **$131,365**
Building Teaching and Research Capacity at the Food Science Cluster of Western Kentucky University to Control Salmonella in Chicken Products
Golla, V. (Co-Project Director); Webb, C (Project Director) 08/2015 – 06/2018

**WKU Research and Creative Activities Program** **$16,000**
Evaluation of Accumulated Contaminants on Firefighter Vehicles
Golla, V (Co-I), Hwang, J (PI), Taylor, R. (Co-PI) 05/2016 – 12/2017

**CDC/NIOSH Central Appalachian Regional Education and Research Center** **$12,000**
Total Worker Health in Rural Workplaces: Challenges of Implementation and Follow-up
Golla, V (Co-PI), Watkins, C (PI) 08/2016 – 06/2017

**CDC/NIOSH Southeast Center for Agricultural Health and Injury Prevention** **$12,000**
Occupational Exposure to Endotoxins in Airborne Particles in Kentucky's Equine Industry
Golla, V. (Co-PI), Hwang, J (PI) 10/2015 – 08/2017

**Kentucky Division of Emergency Management** **$27,559**
Oldham County Kentucky Commodity Flow Analysis
Golla, V. (Co-PI), Taylor, R (PI) 12/2016 – 08/2017

**JJ Keller and Associates Inc.** **$27,500**
Safety and Compliance Grant Program at WKU
Golla, V (Project Director) 01/06 – 06/18

**Kentucky Division of Emergency Management** **$38,215**
Commodity Flow Study of Hazardous Material Transport in Shelby County, Kentucky
Golla, V. (Co- PI), Taylor, R. D. (PI) 12/14 – 08/15

**Commonwealth of Kentucky Office of Commercialization and Innovation,** **$100,000**
Hazardous Material Information System for Emergency Response: HMISFER Project
Golla, V. (Co-PI), Taylor, R D (Co-PI), Baylis, G (Co-PI), Tivol, E (Co-PI) 3/12-12/14

**Kentucky Department for Public Health.** **$28,105**
Kentucky Worksite Wellness Assessment Grant: (CDC Coop. Agrmt. 2B01DP009022-13)
Golla, V (Co-I) Watkins, C (PI) 04/13 – 04/14

**Kentucky Division of Emergency Management** **$96,454**
Commodity Flow Study of Hazardous Material Transport in Henderson, Daviess, Madison, Rowan, and Montgomery Counties, Kentucky.
Golla, V (Co- PI), Taylor, R (PI) 11/12–08/2014

**Kentucky Division of Emergency Management** **$84,488**
Commodity Flow Study of Hazardous Material Transport in Jefferson County and Madison County, Kentucky.
Golla, (PI) 05/10 – 10/12

**WKU College of Health and Human Services Faculty Grant** **$2,894**
The Study of Ergonomic Exposures and Prevalence of Computer Related Musculoskeletal Symptoms among University Employees.
Golla, V (PI) 05/11 – 08/12

**CDC/ NIOSH Southeast Center for Agricultural Health & Injury Prevention** **$34,765**
Linkage of Atrazine Exposure and Birth Data in Kentucky: Assessment of Data Sources and Needs
Golla, V (Co-I), Hopenhayn, C (PI) 10/08 – 10/10

**CDC/ NIOSH Heartland Center for Occupational Health and Safety** **$15,000**
Pesticide Levels and Absorbed Doses Inside Iowa Homes Over Time: Farm Families' Potential Long-Term Exposures
Golla, V (PI) 11/04 – 06/08

**WKU Junior Faculty Grant and CHHS Faculty Grant** **$5,422**
Farm Families'' Potential Exposure to Pesticides through Drinking Water
Golla, V (PI)

**Centers for Disease Control and Prevention (CDC).** **$600,000**
The National Institute for Occupational Safety and Health. 2019-2021.
Vijay Golla – PI, Ritchie Taylor – Co-PI, Edrisa Sanyang – Co-I, and Jacqueline

**City of Goodlettsville, TN.** **$9,954**
Watershed Health Education for Stormwater Management.
Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Gretchen Macy – Co-I. **2018.**

**City of Goodlettsville, TN.** **$9,950**
Stream Corridor Assessment.
Ritchie Taylor – PI and Jacqueline Basham – Co-PI. 2018**.**

**United States Department of Transportation, Kentucky Emergency Management.** **$34,500**
Hazardous Materials Commodity Flow Study.
Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Vijay Golla – Co-I.

**City of Bowling Green, KY..** **$2,574**
Assessment of Diesel Particulate Matter Exposures in Fire Stations.
Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Vijay Golla – Co-I. 2018

**City of Goodlettsville, TN.** **$3,819**
Turbidity Water Quality Study to Assess Runoff from Construction Sites.
Ritchie Taylor – PI and Jacqueline Basham – Co-PI. 2018**.**

**City of Goodlettsville, TN.** **$9,995**
Watershed Health Education for Stormwater Management. Fee for Service Agreement.
Ritchie Taylor – PI and Jacqueline Basham – Co-I. 2017

**City of Portland, TN.** **$9,994**
Watershed Health Assessment in the City of Portland, TN.
Ritchie Taylor – PI. 2016-2017

**Internal Funding through WKU RCAP Grant. Research and Development Fund.** **$16,000**
Evaluation of accumulated contaminants in firefighter vehicles. 2016.
Jooyeon Hwang – PI, Ritchie Taylor – Co-PI, Vijay Golla – Co-PI, and Mac Cann – Co-I.

**Internal Funding through WKU RCAP Grant** **$15,936**

Development of the Hazardous Materials Information System for Emergency Response (HMISFER).
Ritchie Taylor – PI, Vijay Golla – Co-PI, Stacey Wilson – Co-I, Ron Rizzo – Co-I 2016

**City of Goodlettsville, TN. 2016.** **$9500**
Bacteriological and Water Quality Assessment of the Mansker Creek Watershed.
Ritchie Taylor - PI

**City of Goodlettsville, TN.** **$9,500**
Bioassessment of the Mansker Creek Watershed.
Ritchie Taylor – PI 2016

**City of Goodlettsville, TN.** **$9,958**
Watershed Health Assessment of the Mansker Creek Watershed.
Ritchie Taylor – PI 2015.

**Shelby County, Kentucky, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management.** **$38,000**
Hazardous Materials Commodity Flow Study.
Ritchie Taylor – PI and Vijay Golla, Co-PI. 2015.

City of Gallatin, TN. $5,773
Watershed Health Assessment.
Ritchie Taylor – PI 2015.

**City of Goodlettsville, TN.** **$3,500**
Bioassessment of the Mansker Creek Watershed.
Ritchie Taylor – PI 2014.

**Montgomery County, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management.** **$20,000**
Hazardous Materials Commodity Flow Study.
PI – Ritchie Taylor and Co-PI – Vijay Golla 2014.

**Rowan County, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management.** **$20,000**
Hazardous Materials Commodity Flow Study.
PI – Ritchie Taylor and Co-PI – Vijay Golla. 2014.

**United States Department of Agriculture. Funding through Center for Produce Safety, University of California, Davis.** **$67,000**
Produce Safety and Assessment of Pathogen Surrogates for Public Health Protection.
PI - Ritchie Taylor and Student Co-I – Ethan Givan 2014.

**Daviess County and Owensboro, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management.** **$25,000**
Hazardous Materials Commodity Flow Study.
PI – Vijay Golla and Co-PI – Ritchie Taylor 2013.

**Henderson County, Kentucky, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management.** **$25,000**
Hazardous Materials Commodity Flow Study.
PI – Ritchie Taylor and Co-PI – Vijay Golla 2013.

**Western Kentucky University, College of Health and Human Services, Faculty Research Grant. $3,000**
Estrogenic Compounds in the Barren River Watershed and Implications for Human Health Protection.
PI – Ritchie Taylor 2013-2014.

**Kentucky Water Resources Research Institute, University of Kentucky.** **$5,500**
Occurrence and Distribution of Estrogenic Compounds in the Barren River Watershed and Drinking Water in the City of Bowling Green, KY.
PI – Ritchie Taylor and Student Co-I – Roni Grigsby 2012-2013.

**American Cancer Society.** **$20,000**
Becoming a Tobacco-Free Campus in Kentucky.
Watkins, C; Macy, G 2018

**College of Health and Human Services Quick Turnaround Grant.** **$1,500**
Assessing attitudes, perceptions, and behaviors related to tobacco use and policy among faculty, staff and students.
Macy, G; Watkins, C; Ickes, M

**College of Health and Human Services Faculty Research Scholarship** **$3,307**
Barren River Initiative to Get Healthy Together
Macy, G; Seshadri, H; Michimi, A; Golden, J; Lartey, G 2014

**Kentucky Worksite Wellness Assessment Grant** **$21,375**
Partner with the Kentucky Department for Public Health. Co-investigator.
Watkins, C; Lartey, G; Golla, V; Macy, G 2013

**Kentucky Organ Donor Affiliates Grant** **$24,309**
Evaluation of the Life Is Cool Project. Co-investigator
Bonaguro, J; Nagy, C; English, G; Lartey, G; Macy, G 2011

**Western Kentucky University Internal Grant (RCAP)** **$15,518**
Impact of a Wellness Program aimed at Middle School Foodservice Employees.
Embry, A; Watkins, C. 2018

**CARERC Pilot Studies Grant** **$12,000**
Total Worker Health in Rural Workplaces: Challenges of Implementation and Follow-up. Watkins, C 2016

**ASTHO Grant** **$15,000**
Partnership for a Fit KY. Health Impact Assessments: Building States' Capacity to Address Childhood Obesity.
Watkins, C

**Western Kentucky University Junior Faculty Grant** **$5,000**
Worker's Perception of Environmental Factors Influencing Obesity.
Watkins, C 2005/2006

**CHHS Faculty Scholarship Grant** **$1,500**
Worker's Perception of Environmental Factors Influencing Obesity.
Watkins, C 2005/2006

**PTA HIV/STI Train the Trainer** **$22,360**
Kentucky Department of Education.
Watkins, C 2004/2005

### g. Identification of changes in resources.

The state of Kentucky has suffered in recent years with the state of the economy hitting all agencies and the public universities hard. A significant number of institutions have recently decided to undertake budget redesign initiatives to find a long-term solution to recent financial challenges. Institutions are working diligently to reframe budgeting as a way to develop new revenues, promote desired activities, and funnel resources to strategic priorities. The changes will result in more inclusive strategies that acknowledge the powerful impact engaged faculty and staff can have on institutional resources. We strongly anticipate that these changes together with demand for our EOHS graduates from accredited programs (like the EHAC Accreditation) will a catalyst for program growth.

The growth in number of majors and general productivity of the department has resulted in administrative support and funding for continued growth and development of the department. We anticipate continued support to allow for continued growth along the path we've created for ourselves, including funding to meet criteria for accreditation.

## STUDENTS

### a. The admission requirements for the graduate program.

To be considered for admission to study for the MS in Environmental and Occupational Health, students must have the equivalent of an undergraduate major in environmental health science including supporting courses in science and mathematics. Exceptions may be made for students with undergraduate degrees in other disciplines; however, additional courses may be required. Admission may be granted to applicants that fulfill one of the following conditions: 1) GAP score of 550 and minimums of 139 for the GRE Verbal Score and 139 for the GRE Quantitative Score; 2) a cumulative GPA from a U.S. accredited university of at least a 3.2 on a 4.0 scale; or, 3) a cumulative GPA of greater than 3.0 on a 4.0 scale in the Environmental Health and Safety graduate certificate program. International students must attain a minimum of 550 on the written TOEFL, a minimum of 213 on the computerized TOEFL, a minimum of 79 on the Internet TOEFL, or a minimum of 6.5 on the IELTS.

### b. The requirements for satisfactory performance in the program.

Students must maintain a minimum 3.0 cumulative Overall GPA in the program.

### c. The requirements for satisfactory progress in the program.

To remain active in the program, students must be admitted or readmitted in good standing and maintain a minimum 3.0 cumulative Overall GPA and a minimum 3.0 cumulative WKU GPA regardless of accumulated GPA Hours. Failure to meet this grade-point average requirements will result in a student being placed on warning status for the next semester.

### d. Credit hour requirements for graduation.

The Master of Science program in Environmental and Occupational Health degree requires successful completion of 36 semester hours of coursework.

### e. Number of students enrolled in the program for the past six years.

Table 9: Number of Students in MS – EOHS Program

| Academic Year | Number of Students |
|---|---|
| 2015 - 2016 | 20 |
| 2016 - 2017 | 22 |
| 2017 - 2018 | 19 |
| 2018 - 2019 | 14* |

**Fall 2018 admission numbers only. We don't have Spring 2019 head count data at the time of this report.*

## f. Number of program graduates in each of the past six years.

Table 10: Number of Graduates with MS in Environmental and Occupational Health Sciences Degree

| Academic Year | Graduates |
|---|---|
| 2015 - 2016 | 3 |
| 2016 - 2017 | 10 |
| 2017 - 2018 | 13 |

## g. Employment Data: Please provide descriptive job titles and employer identification for program graduates in the past six years.

Table 11: List of MS – EOHS Graduates and Employer

| Name | Grad. Yr. | Employer | Employment Category | Employed in State | Employed out of State |
|---|---|---|---|---|---|
| Vellaturi, S. | 2016 | Breathe California | Non-profit | No | Yes, CA |
| Sravya, M. | 2016 | | | | |
| Skube, J. | 2016 | U.S. Dept. of Veterans Affairs | Federal Government, Industrial Hygienist | No | Yes, TN |
| Shirley, M. | 2017 | Bullit County High School, KY | Secondary Teacher | Yes | |
| Murtaza, U. | 2016 | Foothill Community Health Center | Government, Safety Compliance Officer | No | Yes, CA |
| Thammineni, R. | 2017 | | | | |
| Parveg, Md. | 2017 | Southern Alabama AHEC | Non-profit, Program Manager | No | Yes, AL |
| Bullock, K. | 2016 | NIH, Intramural Research Program | Federal Government, Research Scientist | No | Yes, D.C. |
| McCarty, J. | 2017 | Daicel Safety Systems | Safety Engineer | Yes | |
| Lanke, R. | 2016 | | | | |
| Gade, D. | 2016 | University of | Dental Medicine Student | No | Yes, |
| Lauth, R. | 2017 | New Mather Metals, Inc. | Industry, EHS Director | Yes | |
| Azzarapu, N. | 2017 | | | | |
| Kona, B. | 2017 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Thapa, S | 2017 | Medical Center | Private Hospital, Nursing | Yes | |
| *Lusk, B. | 2017 | | | | |
| *Nuguri, A. | 2017 | | | | |
| *Bezawada, N. | 2017 | | | | |
| Clements, J. | 2018 | Ensafe, Inc. | Consulting Firm, EHS Specialist | No | Yes, TN |
| Ponnala, H. | 2018 | Aetna | Private Business, Sr. Informatics Analyst | No | Yes, OH |
| *Pedarla, V. | 2018 | | | | |
| *Chinthakindi, M. | 2017 | | | | |
| *Gadde, D. | 2018 | | | | |
| Kruth, N. | 2017 | Ensafe, Inc. | Consulting Firm, EHS Specialist | | |
| Stuart, C. | 2017 | | | | |
| Hunton, R. | 2017 | East and Westbrook | Private Industry, EHS Coordinator | Yes | |

**International students whose employment information is unknown.*

# SUMMARY

## a. The major strengths of the program.

- The Department of Public Health's MPH and BS in Public Health are already accredited by CEPH.
- The MS-EOHS program is nationally recognized and categorized as a STEM (Science, Technology, Engineering, and Mathematics) program.
- Faculty conduct translational research on environmental and occupational issues in Western Kentucky and neighboring regions. Our students are continuously involved in scholarship and have multiple opportunities.
- Faculty are teacher-scholars and provide services to the professions as well as the community which connects to student's advanced career development opportunities.
- Through regular strategic planning, faculty are committed to improving curriculum and program growth.
- The MS-EOHS program has access to a pool of adjuncts who work with federal, state, or local environmental and occupational agencies and industries in specialized environmental and occupational health factors. These agencies and industries also provide internship opportunities to our students.
- EOHS program faculty have a long-standing partnership with CDC/NIOSH on training environmental and occupational students through the BS in Environmental and Occupational Health Science Program Training Project Grant (TPG). We have recently submitted a revised application to include CDC/ NIOSH funding for the EOHS graduate program. This grant is funded through 2022.
- Program faculty continue to be recognized by their peers and WKU as noted by success in the tenure and promotion process, as well as receiving awards.
- Faculty in the program are some of the most successful faculty in the College of Health and Human Services at acquiring external grants and contracts.
- In 2017, the research of the unit was recognized and the first research center in the College of Health and Human Services was based on the faculty in the unit, Center for Environmental and Workplace Health.
- Faculty in the unit continue to work to develop innovative solutions in the environmental health field as witnessed by the work on intellectual property and innovative strategies for human health protection. One such innovative development, HAZWATCH, is a current project between program faculty and the Department of Engineering in Ogden College of Engineering and Science.

### b. The major weaknesses of the program.

- Our student admissions were increasing and later plateaued. This could partly be due to minimal resources allocated for recruiting and developing a better marketing strategy to improve the enrollment rates.
- Faculty maintain continuous field research, heavy teaching loads, overloads and heavy advising levels.

### c. The long-term plans or expectations for the program.

- Like the public health programs (MPH and BS), acquire and maintain EHAC accreditation for the MS-EHOS and BS-EOHS, which is a measure to ensure program quality and employability of the graduates.
- Stabilize full-time faculty to attract more extramural and training grants to make the EOHS more competitive in WKU's new Resource, Allocation, Management, and Planning model. This is the new financial model for WKU that includes recognition of the two major sources of income for the University, student credit hour production, and external grants and contracts. Under the RAMP the College budget will be transparent and based on actual revenues, which will allow the program to develop.
- Certificates associated with the program have continued to stabilize and grow. These will be used to recruit qualified students into the program.
- Overall, the interest of students seeking part-time admissions and an online program has increased while the traditional on-ground students are stabilizing at a manageable number. We may need to develop an online program and employ an online coordinator to handle the increasing number of part-time students.

# APPENDICES

## Appendix 1: EOHS Core and Elective Course Syllabi

PH 582: Epidemiology

Instructor Information

Instructor: Dr. Xiuhua (pronounced Shoowah) Ding

Office Location: Academic Complex 127C

Email: xiuhua.ding@wku.edu

Office Phone: 270-745-3618

Office Hours: Mondays & Wednesdays, 9:00am-12:00pm (or by E-mail appointment) Email is the best way to reach me. I try to respond to all emails within 24 hours (48 over weekends). If you've not heard back from me by then, please re-email me. Please put the course name in the subject line. See course site for additional details on how to reach me.

Required Text:

Leon Gordis (5th Edition). *Epidemiology.* ISBN: 978-1455737338

Course description

Epidemiology can be briefly defined as the study of the distribution and determinants of health and disease in human populations. In this course we will focus on the basic concepts, principles and methods of epidemiology, which provide an essential set of tools used in public health research and evaluation. The course includes description of the historical development and the theory and methods of epidemiology, including key concepts such as incidence, prevalence, methods of adjustment, morbidity, mortality, risk, exposure and the interaction of agent, host and environment across the constructs of time, person, and place, surveillance, quantitative study designs.

Course rationale

Students are introduced to the basic types of epidemiologic study designs (ecologic, cross-sectional, cohort, case-control and randomized trials) and study approaches (retrospective and prospective; descriptive and analytic; observational and experimental), and their strengths and limitations; methods and issues related to the measurement of risk, such as relative risk, odds ratio, age-adjusted rates and attributable risk; concepts of validity, sensitivity, specificity, and predictive value; and the effect and problems associated with confounding, and various types of bias, and ways to control or minimize them. The course also provides an overview of the different sub- disciplines within epidemiology as well as an understanding of its multidisciplinary nature, particularly its integration with other areas of public health, such as biostatistics, behavioral sciences and environmental and occupational health.

Course Objectives:

Upon completion of this course, students should be able to be familiar with epidemiologic terminology, outcome measures, and study designs; to appreciate application of epidemiology to subfields (e.g., infectious diseases, environmental health, Genetics); and to apply epidemiologic methods to current public health issues.

Discuss the major landmarks in the field of epidemiology.

Explain the importance and practical applications of epidemiological data to the field of public health

Define, understand, and apply key epidemiological terms.

Directly and indirectly standardize epidemiological data and interpret findings.

Calculate and interpret measures of disease frequency to assess the magnitude of disease in a population.

Identify valid sources of epidemiological data and discuss the limitations and strengths of how these data are collected, including ethical and legal considerations

Compare and contrast the traditional versus contemporary model of disease causation and demonstrate the ability to discuss the public health issues in terms of person, time and place.

Calculate and interpret basic measures of effect used in descriptive epidemiology.

Calculate and interpret measures of disease frequency to assess the magnitude of disease in a population.

Discuss the strengths, limitations, and use of common study designs used in analytical epidemiology, and calculate, and interpret data for each type of study.

Test for interaction and confounding and interpret/communicate findings.

Explain the major sources of error and bias in epidemiological data and apply these concepts when reading epidemiological literature.

Discuss process, limitations and measures used in screening and early detection of disease, including reliability, validity, sensitivity and specificity.

Blackboard

All course materials will be posted on the Western Kentucky University Blackboard, at https://www.wku.edu/it/blackboard/. To log in to Blackboard, you must use your active directory account. The Blackboard environment will permit students to discuss problems and assignments with each other and will allow the instructor to make general announcements to the class through the announcements frame or the e-mail facility. It is recommended that you check in at Blackboard at least once early.

Requirements and Evaluation

Exams (51%)

There will be three in-class exams. Each exam worth 17% of your final grade. Each exam is proctored, closed-notes, and requires a calculator. The only things you will need to bring are a

calculator and pencils with an eraser; paper for computations will be provided and must be turned in to the test proctor. There will be no lectures on exam dates.

Weekly Assignment (34%)

There will be week assignments (total 10 assignments) on each week except the 14th, and 15th week. These assignments provide an opportunity to understand the concepts from lectures and practice calculations for the exams. Each assignment worth about 3.4% of your final grade. Weekly assignments will be due by the next class. Students are required to hand in hard copy of their assignments to instructor before the class starts. Assignments received late (1 second, minute, hour or day) will not be evaluated. Early submissions are strongly encouraged. To finish these assignments, you can read books, lectures notes or discuss with others but you are responsible for your own work.

Literature Presentation (15%)

Students are required to identify one epidemiologic paper with instructor's permission and present it to everyone in the class at the end of semester. Instruction will be provided later. The assessment is designed to give you training experience in delivering effective oral presentations, and recognize the epidemiologic study design and measure discussed in the class as well. Students will grade each other, and it accounts for 15% of your final grades.

Grading

Students' grades will be determined based on three in-class exams, ten weekly assignments and attendance/participation in-class discussion. Final grades will be calculated based on point totals from all exams, quizzes, and weekly assignments.

A standard 10-point scale will be used, based on the following:

| | |
|---|---|
| Exams (3 at 17% each) | 51% |
| Weekly Assignments (10 at ~3.4% each) | 34% |
| Literature presentation | 15% |

NOTE: A clean 10-point scale used which means there is no round up. The grade you earn is the grade is recorded in the system. If you have a question about your grade, please email me to discuss.

Letter grades for the course will be assigned on a percentage basis (as given below).

| Grade | % |
|---|---|
| A | 90-100 |

| | |
|---|---|
| B | 80-89 |
| C | 70-79 |
| D | 60-69 |
| F | < 60 |

Instructor expectations

I expect you to attend every class session. The components are highly interrelated; missing a class will detract from the learning potential of subsequent sessions.

I expect you to be in the classroom and prepared to begin work at the scheduled starting time for each session.

I expect you to actively participate in discussions and case studies.

I expect (and encourage) you to provide honest and timely feedback regarding the content and process of this course throughout the semester.

I expect you to share in the responsibility for making this course an enjoyable and beneficial learning experience.

Academic Integrity

Students are expected to abide by the WKU Student Code of Conduct. WKU has zero tolerance for academic dishonesty. All assignments and exams are to be completed by you, the student. Any observed cheating will be dealt with in accordance with WKU policies. Plagiarism cannot be tolerated in this course. Please note that every student's assignment submitted or posted on Blackboard may be checked using a variety of plagiarism detection software.

Students with Disabilities

In compliance with university policy, students with disabilities who require accommodations (academic adjustments, and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in Downing University Center A 200. The phone number is 270-745-5004; TTY is 270-745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the OFSDS."

Complaints

Students with suggestions or complaints should see me first, and if we cannot come to an agreement, I will direct you to the head of the department.

Religious Observances

Students will be given the opportunity to make up work (typically, exams or assignments) when students notify their instructor that religious observances prevent the student from completing assignments according to deadlines stated in this syllabus. Students must notify the course instructor at least two weeks prior to such an absence and propose how to make up the missed academic work.

Class Policies:

If you have a cell phone it is to be off during class time.

All assignments are due by the date and time listed in the syllabus unless otherwise noted. Assignments will not be accepted beyond the time they are due.

The Professor must be contacted prior to any due date to negotiate any alternative arrangements.

Additional assignments for extra credit will not be given, please don't ask.

Attendance is checked time to time.

The Professor must be notified by e-mail or telephone if the student is unable to attend prior to the start of class.

It's the student's responsibility to get class notes and catch up with any missed work. It is assumed that assigned readings and assignments will be done prior to class.

All work must be submitted to the instructor on blackboard.

All rebuts to grades earned must be made in writing and turned in within one week after receiving the grade.

Any evidence of academic misconduct shall be treated in accordance with the college/university rules and procedures.

Course Schedule

| Week | Topics of Discussion | Assignment/ Reading Chapter |
|---|---|---|
| 1 | (1/23-1/27)<br>Lecture: (Chapter 1): Course introduction, History, Philosophy, and Uses of | Review the entire syllabus (Required). Ch.1. Read Chapter 1 |
| 2 | (1/30 -2/3)<br>Lecture: (Chapter 3): Epidemiologic Measurements Used to Describe Disease Occurrence Prevalence & Incidence | Ch. 3: Read Chapter 3 |
| 3 | (2/6-2/10)<br>Lecture: (Chapter 4): Epidemiologic Measurements Used to Describe Disease Occurrence_ Crude rate & Adjusted rates | Ch. 4: Read Chapter 4 |

| | | |
|---|---|---|
| 4 | (2/13-2/17)<br>Lecture: Data and Additional Measures of Disease Occurrence | Read Additional Material<br>Assignment 4 *(Due: by 2/23 at class)* |
| 5 | EXAM 1 (2/20 – 2/24) | Study Chapters, 1,3,4 & Handouts |
| 6 | (2/27-3/3)<br>Lecture: (Chapter 2, 14) Descriptive Epidemiology: Patterns of Disease - Person, Place & Time ; Association & | Ch. 2: Read chapter 2 (p29-32); Ch. 14 |
| 7 | (3/6-3/10)<br>Lecture: (Chapter 10) Cross-sectional and ecologic study: design and analysis | Ch. 10: Read Chapter 10 (p193-198) |
| 8 | SPRING BREAK (3/13-3/17) | |
| 9 | (3/20-3/24)<br>Lecture: (Chapter 10, 11) Analytic Epidemiology: Types of Study Designs ratios & Case-control study | Ch. 10: Read Chapter 10 (p.177-195); Ch. 11: Read Chapter 11 (p. 205-211) |
| 10 | (3/27-3/31)<br>Continue with Chapter 9, 11,12 Analytic Epidemiology: Types of Study Designs, pp. 112- 118 Cohort study | Ch. 9: Read Chapter 9; Ch. 11: Read Chapter 11 (p. 201- 205); Ch. 12: Read Chapter 12. |
| 11 | EXAM 2 (4/3-4/7) | Study Chapter 2, 9, 10, 11,12 & Handouts |
| 12 | (4/10-4/14)<br>Lecture: (Chapter 14,15) : confounding & bias | Ch. 14 & 15: Read Chapter 14 & 15. |
| 13 | (4/17-4/21)<br>Lecture: (Chapter 2, 5, 7, 8, 18) disease transmission _Infectious Diseases and Outbreak Investigation, and screening for disease in the community | Ch. 2: Read Chapter 2 5,7, 8, 18<br>Assignment 10*(Due: by 4/27 at class)* |

| | | |
|---|---|---|
| | (4/24-4/28)<br>Lecture: (Chapter 19, 20) Public Policy/Ethics, Special application of Epidemiology | Ch. 19, 20: Read Chapter 19 & 20 |
| 15 | (5/1-5/5)<br>Literature Presentation | Presentation |
| 16 | EXAM 3 (5/8-5/12) | Study Chapter 2,5,7,8,14,15,18 & |

**PH 584: Principles of Environmental Health**

Tuesdays and Thursday, 2:20 – 3:40 p.m. (See details on the schedule below)

Instructor: Dr. Edrisa Sanyang

Office: Academic Complex – 236E

Office Hours: 9:35 a.m. – 2:05 p.m. Tuesdays and Thursdays

Phone: 270-745-3500

Email: edrisa.sanyang@wku.edu

Recommended Text

Frumkin, H. (2016). *Environmental Health: From Global to Local*. John Wiley & Sons. ISBN-13: 9781118984765 or ISBN – 10:1118984765.

Course Description

Environmental Health is considered to be a study of the traditional, emerging and controversial issues associated with the environment and health. This course studies the link between the broader environment and public health. It will introduce students to physical, chemical, and biological hazards in a variety of settings both local and international. It will also highlight available national and international policies associated with common environmental health topics. The course will cover contemporary environmental health issues such as global climate change, air quality, food, water, waste, injuries and other physical hazards; and discusses approaches in communicating the environmental risks to different audiences. The instructor will utilize an integrative approach to examine current issues in global public health while introducing environmental health.

Course Objectives

Upon completion of the course, students will:

Explain effects of environmental factors on a population's health

Explain biological and genetic factors that affect a population's health

Explain the social, political and economic determinants of health and how they contribute to population health and health inequities

Explain how globalization affects global burdens of disease

Explain an ecological perspective on the connections among human health, animal health and ecosystem health.

Compare environmental hazards and how different agencies function to control same at both national and international settings.

Communicate audience-appropriate environmental health emergency messages both in writing and presentations.

Advocate for political, social, and economic policies to improve public health programs in diverse settings.

Evaluate policies for their impact on public health and health equity.

Course Assessments

*Quizzes (30 points):*

There is a total of ten quizzes worth 3 points each. Each quiz will cover a topic or a combination of topics and consist of questions based on course lectures and readings. Quizzes will assess understanding of concepts and key definitions. They are timed at 30 minutes and students will have one attempt to complete a quiz. Quizzes are posted on a Tuesday in the weekly course materials and will be open for seven days until 11:45pm (Central Time) on the following Monday. The syllabus shows the due date of each quiz. Assesses Objectives 1 – 5

*Homeworks (24 points)*

There is a total of three (3) homeworks for this course. These are individual assignments to assess the student's ability to apply concepts learned in the course and are worth eight (8) points each. The homeworks will require students to analyze and develop practical environmental health documents. They are posted on a Tuesday in Blackboard in course materials and students are required to upload in the designated link and at a due date indicated in the course calendar. Assesses Objectives 2, 4, 6 – 9.

*Papers (32 Points)*

There will be a total of four brief technical papers. These are individual papers to assess the student's ability to critically review a biological, chemical and physical environmental factors, as well as environmental injustice for both national and international settings. Each paper will worth eight (8) points for a total of 32 points. Assesses Objectives 1, 2, 5, 6, 8, 9.

*Term Paper (14 Points)*

The term paper will assess the student's ability to critique an environmental health objective and strategy of a chosen state. It will involve choosing a state and an environmental/occupational health goal area of the Healthy People 2020 and critically assessing policy, program and interventions and recommending strategies for advancing public health. Assesses Objectives 1 – 5, 6, 8, 9.

Grading

A standard 10-point scale is used. I do not round up.

| Assessments | Points (%) |
|---|---|
| Quizzes *(10 quizzes at 3 points each)* | 30% |
| Homework *(3 Homeworks at 8 points each)* | 24% |
| Papers *(4 papers at 8 points each)* | 32% |
| Term Paper *(14 points)* | 14% |
| Total Points *(100 Points)* | 100% |

Final Course Grade

| Percent Range | Letter Grade |
|---|---|
| 100 – 90 | A |
| 89 – 80 | B |
| 79 – 70 | C |
| 69 – 60 | D |
| 59 – Below | F |

Academic Dishonesty

Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure.

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https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and

Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

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University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Disability Accommodations

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Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

MPH Competencies
This course contributes to the development of the following competencies:

| MPH COMPETENCY | Obj. |
|---|---|
| Evidence-based Approaches to Public Health | |
| 1. Apply epidemiological methods to the breadth of settings and situations in public health practice | |
| 2. Select quantitative and qualitative data collection methods appropriate for a given public health context | |

| | |
|---|---|
| 3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate | |
| 4. Interpret results of data analysis for public health research, policy or practice | |
| Public Health & Health Care Systems | |
| 5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings | 3, 4, 6 |
| 6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels | 1, 2, 3, 4, 5 |
| Planning & Management to Promote Health | |
| 7. Assess population needs, assets and capacities that affect communities' health | |
| 8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs | |
| 9. Design a population-based policy, program, project or intervention | 9 |
| 10. Explain basic principles and tools of budget and resource management | |
| 11. Select methods to evaluate public health programs | |
| Policy in Public Health | |
| 12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence | |
| 13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes | 6, 7 |
| 14. Advocate for political, social or economic policies and programs that will improve health in diverse populations | 8 |
| 15. Evaluate policies for their impact on public health and health equity | 9 |
| Leadership | |
| 16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making | |
| 17. Apply negotiation and mediation skills to address organizational or community challenges | |
| Communication | |
| 18. Select communication strategies for different audiences and sectors | 7 |

| | |
|---|---|
| 19. Communicate audience-appropriate public health content, both in writing and through oral presentation | 7 |
| 20. Describe the importance of cultural competence in communicating public health content | 7 |
| Interprofessional Practice | |
| 21. Perform effectively on interprofessional teams | |
| Systems Thinking (waiting on technical assistance paper from CEPH) | |
| 22. Apply systems thinking tools to a public health issue | |
| WKU MPH Program Competencies | |
| 23. Apply health behavior theories and models to address public health problems. | |
| 24. Describe the role of budgeting; methods of seeking extramural funding; and methods of financial analysis in making decisions about policies, programs and services. | |
| 25. Describe the roles of history, power, privilege and structural inequality in producing health disparities. | |
| 26. Integrate social determinants into public health science, practice, and research. | |
| 27. Identify the direct and indirect population health effects of environmental hazards (biological, chemical and physical) on humans, animals and the ecology. | 1 – 5 |

Foundational Knowledge

This course contributes to the foundational knowledge of public health by addressing the following:

| FOUNDATIONAL KNOWLEDGE | Obj. |
|---|---|
| Profession & Science of Public Health | |
| 1. Explain public health history, philosophy and values | |
| 2. Identify the core functions of public health and the 10 Essential Services. | |
| 3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health | |
| 4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program | |
| 5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc. | |
| 6. Explain the critical importance of evidence in advancing public health knowledge | |
| Factors Related to Human Health | |

| | |
|---|---|
| 7. Explain effects of environmental factors on a population's health | 1 |
| 8. Explain biological and genetic factors that affect a population's health | 2 |
| 9. Explain behavioral and psychological factors that affect a population's health | 3 |
| 10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities | 5 |
| 11. Explain how globalization affects global burdens of disease | 4 |
| 12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (eg, One Health) | 5 |

Course Topics/Schedule

This assignment section lists each week's readings and lectures and well as assessment postings and due dates. The course instructor reserves the right to change, update or revise the syllabus and reschedule as necessary for the session.

| Class #/Date | Topic | Assignment |
|---|---|---|
| 1 – Aug 28 | Class Introduction | Quiz 1 (Due Sept. 2) |
| 2 – Aug 30 | Foundations of Environmental Health | |
| 3 – Sep 4 | Ecology and Ecosystem as foundational for health | Quiz 2 (Due Sept. 10); Paper 1 (Due Sept. 26) |
| 4 – Sep 6 | Environmental and Occupational Epidemiology | |
| 5 – Sep 11 | Genes, Genomics, and Environmental Health | Quiz 3 (Due Sept. 17); Homework 1 (Sept. 30) |
| 6 – Sep 13 | Environmental Psychology | |
| 7 – Sep 18 | Environmental Justice and Vulnerable Population | Quiz 4 (Due Sept. 24) |
| 8 – Sep 20 | Climate Change and Human Health | |
| 9 – Sep 25 | Ambient Air Quality | Quiz 5 (Due Oct. 1); Paper 2 (Due Oct. 17) |
| 10 – Sep 27 | Indoor Air Quality | |
| 11 – Oct 2 | Buildings and Health | Quiz 6 (Due Oct. 15) |
| 12 – Oct 4 | Food and Environmental Health | |

| | | |
|---|---|---|
| 13 – Oct 9 | Water Quality – Supplies | Fall Break; No Quiz |
| 14 – Oct 11 | Fall Break | |

| | | |
|---|---|---|
| 15 – Oct 16 | Water Quality – Diseases | Quiz 7 (Due Oct. 22); Term Paper (Due Dec. 11) |
| 16 – Oct 18 | Waste Characteristics | |
| 17 – Oct 23 | Waste Handling | Quiz 8 (Due Oct. 29) |
| 18 – Oct 25 | Vermin, Arthropods, and Public Health – Part I | |
| 19 – Oct 30 | Vermin, Arthropods, and Public Health - Part II | Quiz 9 (Due Nov. 5); Paper 3 (Nov. 23); Homework 2 (Due Nov. 18) |
| 20– Nov 1 | Environmental Health Field Visit | |
| 21 – Nov 6 | Workers Health | Quiz 10 (Due Nov. 12); |
| 22 – Nov 8 | Agricultural Health | |
| 23 – Nov 13 | Injury and Violence Prevention | Homework 3 (Due Dec. 4) |
| 24 – Nov 15 | Risk Communications | |
| 25 – Nov 20 | Physical Hazards – Noise | Thanksgiving Break; No Quiz |
| 26 – Nov 22 | Thanksgiving Break | |
| 27 – Nov 27 | Physical Hazards – Radiation & Thermal | Paper 4 (Due Dec. 11) |
| 28 – Nov 29 | Policy Environment | |
| 29 – Dec 4 | Student Presentation | Student presentation – Homework 3 |
| 30 – Dec 6 | Student Presentation | Student Presentation – Term Paper |
| 31 – Dec 11 | Finals Week | Finals Week |

## EOHS 550- Principles of Occupational Safety and Health

Instructor: Dr. Gretchen Macy

Office: AC 128D Office Phone: 270-745-5870

Office Hours: Mondays 12:00-2:00. Other hours available by appointment.

Email: gretchen.macy@wku.edu

Recommended Text:

David L. Goetsch – Occupational Safety & Health. Ninth Edition (2018). Pearson Prentice Hall Publishers, A Division of Pearson Education, Inc.

Course Description:

Examines the principles of occupational safety and health in the workplace for controlling hazards, preventing occupational exposures, and improving worker health. Concepts surveyed will include hazards in the workplace, hazard and safety analysis, hierarchy of controls, injury prevention, industrial hygiene, workplace health promotion, and occupational safety and health management.

Course Objectives:

Upon successful completion of EOHS 550 course students will be able to:

Formulate basic knowledge in the identification and assessment of health and safety hazards in the workplace.

Identify a conceptual framework for the practice of occupational safety and health.

Apply health promotion, prevention, and protection concepts to occupational health and safety.

Describe the roles of occupational health and safety professionals in the field.

Course Assessments

Quizzes (160 points; 40 points each):

There will be (4) multiple-choice quizzes throughout the semester. Each quiz will cover the information from assigned readings, Power Point slides, and class lectures. Students will have one attempt for each quiz.

Application Activities (20 Points; 10 points each):

There will be (2) application activities throughout the semester. You will be asked to apply information from the lecture and online content to address a real-world issue.

Discussion Boards (50 Points; 10 points each):

There will be (5) discussion boards throughout the semester. You will be asked to respond to a prompt by Wednesday of the respective week. You will also have to respond to at least 2 of your classmates by Sunday for a total of three posts. Comments should be respective, clear and well developed. Simply agreeing or disagreeing with a classmate will not meet minimum requirements.

Ergonomics Assessment (50 Points):

For this assignment, you will observe two videos on Blackboard. You will then fill out an ergonomics assessment based on the manufacturing worker and office station in the videos. After assessing the video, you will provide strategies for prevention of MSK issues. A more comprehensive description and rubric will be posted on Blackboard.

Occupational Disease Fact Sheet (50 points):

For this assignment, you should select a current occupational health disease. With this topic in mind, conduct a literature search, including web resources, for information on this topic. You will then develop a fact sheet on the disease with strategies for prevention. A more comprehensive description and rubric will be posted on Blackboard.

Hazards Analysis (100 Points): For this assignment, you will conduct a JHA at a specific job site. A more comprehensive description and rubric will be posted on Blackboard.

Grading

| | |
|---|---|
| Quizzes | 160 pts |
| Application Activities | 20 pts |
| Discussion Boards | 50 pts |
| Occupational Disease Fact Sheet | 50 pts |
| Ergonomics Assessment | 50 pts |
| Hazards Analysis | 100 pts |
| Total | 430 pts |

Grades are based upon university standards.

A= 90% or above

B= 80-89%

C= 70-79%

D= 60-69%

F= 59% or below

Academic Dishonesty

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University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Disability Accommodations

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Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Food Insecurity

Food insecurity is defined as a condition where persons, in this case students, do not have adequate resources to feed themselves, either nutritiously or not at all (USDA, 2013). According to a recent national study (Hunger on Campus, 2016), food insecurity is common at colleges and universities across the country, potentially undermining the educational success of untold thousands of students. If food insecurity is an issue for you, or someone you know, help is readily available. Contact the WKU Office of Sustainability at (270) 745-2508 or email sustainability@wku.edu, or visit www.starvingtolearn.com.

For additional information please visit the campus-wide syllabus information page at https://www.wku.edu/syllabusinfo.

**EOHS 560: Environmental Management and Risk Assessment**

Instructor: Dr. Edrisa Sanyang

Office: Academic Complex – 236E

Office Hours: 9:35 a.m. – 2:05 p.m. Tuesdays and Thursdays

Phone: 270-745-3500

Email: edrisa.sanyang@wku.edu

*Recommended Text*

Robson, M and Toscano, W. (2007). *Risk Assessment for Environmental Health*. John Wiley & Sons. ISBN-13: 978-0-7879-8319-2 or ISBN – 10:0-7879-8319-5.

*Course Description*

Application of environmental management systems, methods, and tools to mitigate threats to environment and human health. Guide students to understand their role as an environmental

health professional working with the public and private sectors in controlling adverse environmental conditions through the competencies of assessment, management, and communication. Application of risk assessment as it relates to human and environmental health.

*Course Objectives*

Upon completion of the course, students will:

Identify sources, pathways, routes, and consequences of exposure to environmental health hazards on human populations.

Interpret science-based dose/response data to predict the effect of environmental exposure on human health.

Retrieve and use evidence-based data from governmental, library and Internet resources.

Synthesize toxicity, dose/response, and exposure data into recommendations for the site cleanup and management practices for the protection of human health.

Communicate audience-appropriate environmental health emergency messages both in writing and presentations.

*Course Assessments*

Quizzes (15 points):

There is a total of five quizzes worth 3 points each. Each quiz will cover a combination of topics and consist of questions based on course lectures and readings. Quizzes will assess understanding of concepts and key definitions. They are timed at 30 minutes and students will have one attempt to complete a quiz. Quizzes are posted on a Tuesday in the weekly course materials and will be open for seven days until 11:45pm (Central Time) on the following Monday. The syllabus shows the due date of each quiz.

Assignments (36 Points)

There will be a total of three assignments. These are individual homeworks to assess the student's ability to critically assess various risks, management and communication in environmental health. Each paper will worth twelve (12) points for a total of 36 points.

Term Paper (24 Points)

The term paper will assess the student's ability to produce an environmental risk report. It will be the culminating experience for the course where students will produce a report based on the three assignments by incorporating instructor feedback to the term paper. The paper will worth 24 points.

Final Exams (25 Points)

Students will take final exams which will cover all sections of the course for the entire semester. Examination modalities will be communicated to the class ahead of the exams.

*Grading*

A standard 10-point scale is used. I do not round up.

| Assessments | Points (%) |
|---|---|
| Quizzes *(5 quizzes at 3 points each)* | 15% |
| Assignments *(3 papers at 12 points each)* | 36% |
| Term Paper *(24 points)* | 24% |
| Final Exam (25%) | 25% |
| Total Points *(100 Points)* | 100% |

*Final Course Grade*

| Percent Range | Letter Grade |
|---|---|
| 100 – 90 | A |
| 89 – 80 | B |
| 79 – 70 | C |
| 69 – 60 | D |
| 59 – Below | F |

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*Course Topics/Schedule*

This section lists each week's readings and lectures and well as assessment postings and due dates. The course instructor reserves the right to change, update or revise the syllabus and reschedule as necessary for the session.

| Week | Topics |
|---|---|
| Week 1 – Jan 22 | Introduction to the course; Environmental Risk Assessment and Management |

| | |
|---|---|
| Week 2 – Jan 29 | Assessing risks to human health from chemicals in the environment |
| Week 3 – Feb 5 | Assessing risks to ecological systems from chemicals |
| Week 4 – Feb 12 | Evaluation of likelihood of major incidents in industrial process |
| Week 5 – Feb 19 | Assessing risks to ecological systems from biological introductions |
| Week 6 – Feb 26 | Epidemiology and environment risk assessment |
| Week 7 – Mar 5 | Spring Break |
| Week 8 – Mar 12 | Application of risk in policy environment |
| Week 9 – Mar 19 | Psychology of risk |
| Week 10 – Mar 26 | Cooperate chemical management |
| Week 11 – Apr 2 | Environmental risk assessment in business |
| Week 12 – Apr 9 | Risk assessment and management in waste water treatment |
| Week 13 – Apr 16 | Risk assessment and management in in-land waters |
| Week 14 – Apr 23 | Risk assessment and management in developmental programs |
| Week 15 – Apr 30 | Risk communication |
| Week 16 – May 6 | Finals Week - Final Exams |

## EOHS 510 - Watershed Management and Science

**Professor:**
Ritchie D. Taylor, Ph.D.
Department of Public Health
Address: WKU, 1906 College Heights Blvd., AC 236D, Bowling Green, KY 42101
Phone: (270)745-8975
Fax : (270)745-4437A
Email: ritchie.taylor@wku.eduA

Course Objectives:
Students will:
Apply methods to analyze, summarize, and report water quality data, including the use of descriptive and statistical techniques.

Critique methodologies, research, and results based on water quality and watershed principles presented in the course materials, when given case studies and journal articles.
Describe and evaluate methods for assessing, preventing, and controlling the risks of stormwater to human and ecosystem health.
Evaluate a stormwater permit to determine the scope of a watershed management program to be instituted by an industry or municipality.
Design a study to evaluate a requirement specified in a stormwater permit.
Explain management functions of environmental health science professionals in stormwater management and in the reduction of health risks related to waterborne contaminants.
Describe and explain local, state, federal, and global water quality laws, regulations, standards, guidelines, and policy for the protection of human and ecosystem health.
Summarize major global water issues in relation to environmental justice, disease, and sustainability of water resources and in the protection of human and ecosystem health.
Communicate in written, graphical, and oral methods the use of equipment for the protection of water quality and human health.
Use critical thinking skills to evaluate a management plan for a watershed.
Collect, analyze, and evaluate water quality information and threats with the use of scientific instruments, technology, computer tools, and water quality models.

**Course Population/Target Audience:**
Students in Environmental Health Science
Environmental managers
Environmental professionals
Students interested in environmental science and management
Students pursuing a degree related to public health and environmental science, protection, and/or management

Course Credit:
Three (3) hours of college credit on the graduate level
Course Format:
Web-enhanced through blackboard
Lecture and Discussions
Review of course materials
Selected readings
Participation in the Discussions
Tests
Completion of exercises and assignments
Final Project: Development of a proposal to assess a local watershed management problem or assessment of a local watershed

Course Outline:
Introduction to Watershed Science and Management
Syllabus Review

What is a Watershed?
Video or Watershed Tour
Clean Water Act and Kentucky Water Quality Standards – Discussion and Exercise
Water Management
The Problem of Stormwater Runoff
Water Quality, Water Supply and Pollution Control
Water Quality
Water Quality Standards and Regulations
Receiving Water Uses
Impairments
Sources of Pollution
Water Supply
Source Water Protection
Wastewater Treatment
Watershed and Stormwater Management
Review of a General Stormwater Permit
Stormwater Management and Watershed Protection
TMDLs and Impairments
Watershed Management Agencies and Programs
Stormwater Runoff
Best Management Practices
Floodplains
Field Methods
Computer Applications
Watershed Stressors
Nonpoint Source Runoff Impacts
Stressor Categories and Effects
Receiving Water Effects
Human Health Effects
Methods and Tools for Watershed Assessment
Overview of Watershed Assessment
Biological: Bioassessments, Toxicity Testing, historical data, changes in biotic communities.
Chemical: wastewater (point and nonpoint sources), toxicants, nutrients, and chemical cycling.
Physical: flow, stream morphology, and surface water hydrology
Water quality assessments
Application of Geographic Information Systems (GIS)
Application of Statistics
Water Quality Modeling
Current Issues in Watershed Science
Climate Change
Hypoxia
Biodiversity
Emerging Contaminants

Human Health and Ecological Risk Assessment
International Service Learning
Water Scarcity
Policy Issues

Tools Outline:
Computer Skills
Excel
PowerPoint
Word
Access
GIS
Statistics
Basic Water Quality
Dissolved Oxygen
Turbidity
pH
Specific Conductance
Temperature
Chlorophyll a
Water Quality Meters
Long-term monitoring
*In situ* monitoring
SOPs
Water Flow Measurement
Flowtracker – shallow steam flow measurement
RiverCat – deep stream/river flow measurement
Stormwater flow measurement
Stormwater/Stream Sampling
Grab samples
Water column samples
Isco Sampler
Time weighted
Flow weighted
Basic Water Chemistry
Nutrients
Metals
Chlorine
Pesticides/herbicides
Biochemical Oxygen Demand
Other Parameters
Microbiological
E. coli

Total Coliform
Watershed Survey
Stormwater Survey
Biological Monitoring
Macroinvertebrates
Comparative Study
Urban Stream
Rural Stream
Wasteload Allocation and Total Maximum Daily Load
Study Planning and Scope
Budget
Sampling
Data Analysis
Results
Water Quality Modeling

Web Resources:
This course is web-enhanced through Blackboard
You will utilize blackboard to access the course
You must have access to the World Wide Web
Links for Specific Assignments
Other Course Materials
If you do not have access to the World Wide Web you will be required to find access, such as the WKU open computer labs in MMTH
**All assignments, exercises, and projects will be turned in through Blackboard**
**All tests and quizzes will be completed through Blackboard**

Required Texts and Materials:
No text is required
All materials will be provided through Blackboard

Expectations:
The professor will follow all of these expectations.
Students are expected to use proper online etiquette (absolutely no improper language).
Ability to communicate in writing in a clear, effective, and timely manner is a critical necessity, as you will be posting discussions, emailing, and preparing type-written assignments.
Do not send emails or other text in all caps.
Only send emails that pertain to the course.
Be courteous and thoughtful to classmates and the professor.
Explain all of your ideas and points within an assignment.
Be willing to communicate openly and thoughtfully.
Have fun learning and give us feedback on your learning experience.
Ask for help when you need it via email.

You are expected to turn in all assignments on time. Failure to do so results in an automatic reduction in the letter grade for each day late.

Course Assignments:
All assignments are due by midnight of the due date.
Late assignments will not be accepted.
**Assignments will be submitted through the specific link on Blackboard for each assignment.**
**All assignments will be posted under the course documents for the sections.**
You will need to submit your assignments in Microsoft Word, PowerPoint, and/or Excel, as requested.
If the professor has problems opening a file you submit, you will be notified to resubmit your work.
Please check announcements, assignments, discussion board, and course materials, at least twice a week.

Watershed/Stormwater Portfolio
Instructions will be provided by the second week of the course.
Must include a three part critical analysis of a watershed problem or issue.
Details below.

| | | |
|---|---|---|
| 1. | Review of a Stormwater Permit | **100 points** |
| | Evaluate a stormwater permit | |
| | Major requirements of the permit | 25 points |
| | Definition of a program to meet the permit | 25 points |
| | Annotated bibliography | 25 points |
| | Description of the watershed, map, and Statement of Permit/Research Question(s) | 25 points |
| 2. | Stormwater Assessment, Prevention, and Control | **100 points** |
| | *(may include analysis of secondary data set or primary data)* | 15 |
| | Introduction – Description of the watershed, Introduction to stormwater management and watershed protection – watershed maps, etc. | 20 |
| | Statement of purpose and objectives related to the assessments required by the stormwater purmit | |
| | Methodology – What methodologies should be employed for assessment, prevention, and control? | 15 |
| | What results are expected from the assessments, prevention and control? | 15 |
| | Timeline and Budget | |
| | Appropriate Format - References | 20 |

| | | |
|---|---|---|
| | | 15 |
| 3. | Stormwater Management Proposal | **100 points** |
| | Recommendations and Conclusions Paper | |
| | Cover, TOC, Introduction and Study Objectives | 20 |
| | Methodology – must include maps, study components, etc. | 20 |
| | Expected Results – What results to you expect to obtain? Deliverables? | 20 |
| | Timeline, Budget | |
| | Appropriate Format - References | 20 |
| | | 10 |
| 4. | Watershed Symposium – 10% of Final Grade | **100 points** |
| | Present results of one-day data collections based on the methodology in your proposal. Must be a platform presentation or poster with an oral presentation. | |

Course Grading:
Quizzes: Topics Covered – 20% of grade – 200 points
Objectives - 1, 3, 4, 5, and 6
Course Portfolio and Symposium – 40% of grade – 400 points – will include all components of the paper, presentation, a reflection journal, and field notes.
Objectives - 7, 8, and 9
Assignments and exercises – 20% of grade – 200 points
Objectives - 1, 2, 3, 4, 5, and 6
Online Discussions – 20% of grade – 200 points
Objectives – 1, 4, 7, 8, 9, and 10
Course Schedule

***Course will meet in the classroom once a week. This is a blended course. Materials and content will be provided on Blackboard. The official schedule calls for this class to meet in the classroom every other scheduled date. However, there will be opportunities to work in the field and with tools throughout the semester.

**Attendance Policy/Expectations:**
Students are expected to:
Be on time and stay until class is dismissed
Attend all seminar sessions.
Complete the required reading PRIOR to class.
Turn off cell phones, pagers, and unrelated computer applications during class.
Participate actively in the discussion of the topic after the presentation.
WKU Policy on Plagiarism:

To represent ideas or interpretations taken from another source as one's own is plagiarism. Plagiarism is a serious offence. The academic work of students must be their own. Students must give author(s) credit for any source material used. To lift directly from a source without giving credit is a flagrant act. To present a borrowed passage after having changed a few words, even if the source is cited, is also plagiarism. You must follow proper citation and bibliographic procedures in all work. It is highly suggested that you use the APA Style Manual to guide you in the citation process. These manuals are available in

WKU Policy on Cheating:
No student shall receive or give assistance not authorized by the instructor in taking examinations or in the preparation of an essay, laboratory report, problem assignment, or other project that is submitted for purposes of grade determination.

Students with Disabilities:
In compliance with university policy, students with disabilities who require academic and /or auxiliary aids accommodations for this course must contact the Office for Student Disability Services (OFSDS), located in DUC A-200 of the Student Success Center in the Downing University Center. The OFSDS can be reached at 270-745-5004. Please DO NOT request accommodations directly from the instructor without a letter of accommodation from the Office of Student Disability Services.

Incomplete Policy
Assignments and items to be submitted for a grade, that are not turned in to the instructor, will receive a "0" grade and may result in the student receiving a failing grade for the course. No student will receive an incomplete for the course unless there is an emergency that precludes them from completing the course.

## PH 577 - Environmental Toxicology

Professor:
Ritchie D. Taylor, Ph.D.
Department of Public Health
Address: WKU, 1906 College Heights Blvd., AC 128B, Bowling Green, KY 42101
Phone: Office (270)745-8975
Email: ritchie.taylor@wku.edu
Website: Course Website on Blackboard

Office Hours, Appointments, and Class Meetings:
Dr. Taylor maintains office hours each semester, please ask for an appointment.
Arrange an appointment at a by Email or call Dr. Taylor to set up an appointment or conference call.

This is a web-based course. However, there may be online course meetings required through web conferencing via a tool such as WKU's Adobe Connect. This tool is similar to a Skype or other web conference.

Course Description:

Toxicological principles and environmental risk assessment with emphasis on routes of exposure, biokinetics, and response to chemical stressors.

Purpose of the Course:

The purpose of this course is to provide students with a background to apply principles of environmental toxicology. Students will explain how human and ecosystem health may be impacted through routes of exposure to environmental contaminants. As such, the emphasis will be on evaluating environmental toxicants in relation to human and ecosystem health, analysis of environmental toxicant data, and techniques used in assessing and managing the risk of environmental toxicants. We will begin the course by discussing basic scientific principles related to environmental toxicology. The course will culminate with students designing a project to assess an environmental toxicant that occurs locally but is of global concern.

Course Objectives:

Students will:

1. Explain principles of environmental toxicology when required.
2. Summarize the effects of major environmental agents when given exposure scenarios.
3. Statistically analyze environmental toxicant data and summarize results in comparison to regulatory limits, when given a database of environmental concentration data.
4. Evaluate environmental toxicant risks to human and ecosystem health when given or required to produce results of statistical analyses of environmental toxicant data.
5. Develop environmental and occupational management strategies when given concentration data for toxicants in the natural or built environment.
6. Describe and explain laws, regulations, and policies that govern the use and levels of environmental toxicants.
7. Design a project to assess an environmental toxicant that occurs locally and is a global concern by applying the principles of environmental risk assessment.
8. Critique methodologies, results, and conclusions presented in environmental toxicology research studies based on principles presented in the textbook and course materials.

Course Credit:

Three (3) hours of college credit on the graduate level.

Course Format:

Web based through Blackboard
Course Videos
Exercises

Experiential learning: Non-mandatory opportunities for field labs and/or field trips
Review of Environmental Toxicology literature
Online discussions through Blackboard Discussion Board participation
Quizzes and exams
Student presentations
Web Conferences

Course Calendar:
Review the course outline below
The list of tasks for each section on Blackboard will serve as the calendar for the course and the list of tasks you need to complete. When a section is posted the list of tasks can be found under the Section folder in Blackboard.
Complete each task by the due date given.
Each section will be completed before another is posted on Blackboard.

Course Outline:
Introduction
Review Syllabus
Review Welcome Video
Section 1: Toxicology and Environmental Toxicology
Discussion 1
Exercise 1
Section 2: Chemical Properties and Toxicity
Exercise 2
Quiz: Sections 1 and 2
Section 3: Environmental Pollutants and Their Fate
Discussion 2: Example of an environmental toxicant that occurs locally and is a global concern – Final Project Topic
Exercise 3: Drinking Water Pollutants and Risk Assessment
Section 4: Dose and Response, and Absorption of Toxicants
Exercise 4
Quiz: Sections 3 and 4
Section 5: Distribution, Storage, Elimination, and Biotransformation of Toxicants Discussion
Discussion 3
Exercise 5
Section 6: Chemicals: Mutagenesis and Cancer
Exercise 6
Quiz: Sections 5 and 6
Section 7: Systemic Toxicology
Discussion
Exercise 7
Section 8: Practice, Regulatory Considerations, and Toxicity Testing
Discussion – Final Project Status Report

Exercise 8: Analysis of Mercury in Fish and Risk to Human Health or Evaluation of Air Pollutants in a Kentucky City
Quiz: Sections 7 and 8
Section 9: Public Safety, Management, Risk Assessment, and Decision Making
Discussion
Web Conference
Section 10
Final Project
Quiz: Sections 9 and 10
**Final Project**
**Final Project Journal**
**Final Project Presentation – Web Conference**
Required Texts and Materials:
Richards, I.S. and M. Bourgeois. 2014. Principles and Practice of Toxicology in Public Health. Jones and Bartlett Publishers. Sudbury, Massachusetts. 522 pp.

IBM SPSS 24 or later version. Statistical software available through the WKU Software Center. Price as of Spring 2018 $50 for students.

Additional Readings and References:
Carson, R. 1962. Silent Spring. Houghton Mifflin Company, New York, NY. 368 pp.

Choudhry, H, L.K. Teuschler et al. Supplementary guidance for conducting health risk assessment of chemical mixtures. Office of Research and Development: EPA/630/R-00/002. August 2000. http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=20533#Download

Colborn, T., D. Dumanoski, and J.P. Meyers. 1997. Our Stolen Future. Penguin Books, New York, NY. 336 pp.

Steingraber, S. 2010. Living Downstream. Da Capo Press, Cambridge, MA. 440 pp.

U.S. Department of Health and Human Services. 2004. ATSDR's Guidance Manual for the Assessment of Joint Toxic Action of ChemicalMixtures.
http://www.atsdr.cdc.gov/interactionprofiles/ipga.html

U.S. Department of Health and Human Services, National Library of Medicine. 2014. Toxicology Tutorials. http://sis.nlm.nih.gov/enviro/toxtutor.html.

U.S. Department of Health and Human Services, National Library of Medicine. 2014. ToxLearn. http://toxlearn.nlm.nih.gov/.

U.S. EPA's Framework for Cumulative Risk Assessment May 2003
http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=36941

U.S. EPA's Concepts, Methods and Data Sources for Cumulative Health Risk Assessment of Multiple Chemicals, Exposures and Effects: A Resource Document. http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=190187

U.S. EPA's Supplementary Guidance for Conducting Health Risk Assessment of Chemical Mixtures 2000. http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=20533

*****Other texts and readings will be provided through the course.*****

Online Resources:

Course Web Site: use the WKU blackboard website to access course tasks, materials, discussions, quizzes, assignments, and information.

You will need access to the WKU Blackboard course site via an internet connection – student labs are available on campus.

- Please check the course Blackboard site and your WKU email for messages.
- Additional course materials will be provided through Blackboard and in class.

Expectations and Important Information:

- Please review the course outline and check the tasks for each section to determine what needs to be completed for each section. The task list for each section can be found under "Course Documents" and then select the Section that is under study.
- All tasks to be completed will be posted under the task list in each section on Blackboard. This will allow you to determine what tasks you have and have not completed.
- Assignments for a Section will be posted under the "Assignments" folder for that section. All quizzes and tests will be posted under the "Test" folder for that section. The final project will be posted under "Course Documents" in the "Final Project" folder. Discussion questions will be posted under the "Discussion Board".
- You must complete all assignments, quizzes/tests, and the final project by the due date and time.
- Do not wait until the last minute to ask a question or upload a file pertaining to an assignment or the final project. If you have problems please post a question to the discussion board or call me on my cell phone.
- Access to course assignments, tests, activities, and projects will be through Blackboard.
- All assignments will have a due date and you will be expected to submit these through Blackboard.

1.For each assignment there will be a link under the Assignments folder for that section.

2.You will need to download the assignment document, complete your work, and then submit your completed assignment through the link for that assignment.

3.Always save your work on your computer or storage media. Also, save a backup on a disc or thumb drive. Additionally, you can save a copy to Blackboard.

4.Please note, once you submit an assignment you will not be able to go back and work on that assignment. You can save your work under each assignment by selecting the "Save" button under the link for a particular assignment. However, you must select the "Submit" button to

turn in your work. If you accidentally select "Submit" before your assignment is completed you must post that you have done this on the Course Questions discussion and Dr. Taylor will clear the attempt. Just remember that this will delete your work that was saved on Blackboard. So you must have a backup on your computer or elsewhere.
5.Alternatively, you can save your document on blackboard and access it until complete, then submit when you are finished.
•All Quizzes will be online. Quizzes and tests may be T/F, multiple choice, matching, essay and other formats. Quizzes and tests will be graded through the Blackboard system.
1.Some quizzes and tests may allow multiple attempts (up to three).
2.All quizzes and tests will be for a specified time period.
3.All quizzes and tests are open note and open book.
4.All quizzes and tests are expected to be completed by the student enrolled in the class. If it is determined that a student has cheated on an exam, a failing grade will be given at a minimum.
•Required assignments and projects will be completed and submitted through the Blackboard system.
•Plagiarism will not be tolerated. You are expected to do your own work and cite all references. All papers will be evaluated for plagiarism using a computer tool. Do not copy the work of another student. If you are found to be plagiarizing there will be serious consequences, such as a failing grade in the course. University policy will be followed. Copying a paper of another student or directly from a source will result in a failing grade.

Quizzes – 25% of final grade – five quizzes - 250 points possible
Class exercises, including online discussions – 50% of final grade – 500 points possible – four discussions (100 points) and eight exercises (400 points)
Environmental Toxicology Project Journal, Paper and Presentation: Design a project/study to assess an environmental toxicant(s) of local concern – 25% of final grade – 250 points possible – Paper 100 points, Journal 100 points, and Presentation 50 points
1000 points total

Notes:
Environmental Toxicology Project Paper will be a series of components that will be submitted separately throughout the semester. These components may constitute specific assignments. Course outline above shows items required for each section.

All assignments will be given a due date.
Late assignments will not be accepted.
Assignments can be submitted prior to the class meeting via email or turned in on the due date.
Assignments will be graded within one week of completion
Grade Scheme
A = 90% or greater
B = 80% to 89%
C = 70% to 79%

D = 60% to 69%
F = Less than 60%
Environmental Toxicology Project Paper and Presentation:
This project will occur throughout the semester. A guide to the paper will be posted by the second week of the course.
If you have a specific interest in an environmental issue, for example stormwater runoff, make sure and make this the focus of your project.
This project will not require actual monitoring. However, you will have a much stronger project if you can analyze historical data, present information from other similar studies, or collect a limited baseline of data. Dr. Taylor will be available to assist. Also, if students have similar interests we can make this a class project with each student developing an aspect of the project.

Syllabus Changes:
The professor reserves the right to make syllabus changes, dependent upon the needs of the class. For example, the class may dictate only two exams and more emphasis on applied environmental toxicology research.

Attendance Policy:
You will be expected to review all materials, complete assignment, tests, and the final project. The Blackboard site will be checked for your participation. Assignments and completion of tests will be taken as your participation.

Disability Statement:
"Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Disability Services, Room 101, Garrett. The OFSDS telephone number is (270) 745-5004 V/TDD."
"Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office of Student Disability Services."

Academic Dishonesty and Student Code of Conduct:
Academic dishonesty, which includes but is not limited to actions such as cheating and plagiarism, **will not be tolerated,** according to the WKU Student Handbook and WKU Student Code of Conduct. You are expected to follow the WKU Student Code of Conduct at all times in this course, as specified at:
http://wku.edu/judicialaffairs/student-code-of-conduct.php.

## PH 501 – Research Methods

Professor:
Ritchie D. Taylor, Ph.D.
Department of Public Health
Address: WKU, 1906 College Heights Blvd., AC 128B, Bowling Green, KY 42101

Phone: Cell (270)535-1420, Office (270)745-8975
Email: ritchie.taylor@wku.edu
Website: Course Website on Blackboard

Office Hours, Appointments, and Class Meetings:
Dr. Taylor maintains office hours each semester.
Arrange an appointment at a class session, by Email or call Dr. Taylor to set up an appointment or conference call.
Class meetings will occur throughout the semester as shown in Topnet. Make sure you are aware of these dates.
Additional non-mandatory meetings may be provided to assist students with course material, research, and assignments.

Course Description:
This course provides students with an introduction to research methods in the health sciences, with emphasis in environmental and occupational health science. The course is designed for students with little or no prior academic coursework in this area. Course content will be especially useful for students contemplating a thesis, research project, or capstone.

Course Objectives:
Students will:

Explain principles of research methods.
Argue concepts of health science research, based on course readings and information.
Compare research methods used to investigate health science problems.
Examine the research components of journal articles, projects, and technical reports.
Formulate research questions, hypotheses, and goals/objectives for health science problems.
Create an annotated bibliography.
Develop a literature review.
Design a budget to meet planned research goals and objectives
Author a proposal to conduct research on a specific health science problem.
Communicate a proposal of a specific health science problem using public speaking.

Course Credit:
Three (3) hours of college credit at the graduate level.

Course Format:
Face to face class meetings
Lecture
Exercises
Experiential learning: field labs and/or field trips
Web enhanced through Blackboard
Review of research literature

Face to face discussions and Blackboard Discussion Board participation
Quizzes and exams
Research proposal
Student presentations

Course Calendar:
Review the course outline below for in class meetings.
The list of tasks for each section on Blackboard will serve as the calendar for the course and the list of tasks you need to complete. When a section is posted the list of tasks can be found under the Section folder in Blackboard.
Complete each task by the due date given.
Each section will be completed before another is posted on Blackboard.

Course Outline:
**Introduction**
Introduction
Syllabus review
In class Open Space Discussion
What is research?
How is research important to your education in Environmental and Occupational Health/Public Health?
How important is the ability to conduct research to your future career?
Review of Chapter 1
Critical Thinking Discussion - What would you tell your governor is the greatest health problem facing the citizens of your state today? How would you accumulate evidence to support your contention?
**Section 1: Research and Developing the Research Proposal**
Field Trip to Lost River: Discovering a research problem
Discussions: In class and Blackboard
Exercises
Lost River: Discovering a research problem
Research questions, hypotheses, and research map
Quiz
**Section 2: Literature Review and Ethics in Research**
Discussions: In class and Blackboard
Exercises
Literature review table: minimum six references on a chosen topic
Annotated Bibliography
Ethics case study
Quiz
**Section 3: Experimental, Quasi Experimental Research, and Qualitative Research**
Discussions: In class and Blackboard
Exercise

Review the WKU graduate school proposal requirements
Proposed research topic
Quiz
**Section 4: Research Proposal**
Review of WKU graduate school proposal requirements
Outline of a research project
Project timeline
Developing a project budget
**Section 5: Evaluation and Epidemiologic Research**
Discussions
Exercise
Quiz
**Section 6: Sampling Designs and Techniques**
Discussions
Exercise
Field Trip: Watershed Health Assessment and Research
Stormwater permit
Watershed health
Research and sampling
Draft WKU research proposal
**Section 7: Analyzing and Interpreting Data**
Discussions
Exercises
Research proposal data analysis plan
Quiz
**Section 8: Data Presentation and Communicating Your Research**
Discussions
Final WKU research proposal
Research proposal presentation
**During Final Exam Time**
**Student research proposal presentations – Open to Faculty and Students**
**10 minute (maximum with questions – 7 minutes for presentation and 3 minutes for questions) oral presentations at Research Methods Symposium or Research Methods Poster Symposium Session in WKU Department of Public Health**

Required Texts and Materials:
Neutens, J.J. 2014. Research Techniques for the Health Sciences. Pearson Education, Inc. San Francisco, CA. 314 pp. (ISBN-10: 0-321-88344-6)

*****Other texts and readings will be provided through the course Blackboard site.*****
Online Resources:
Course Web Site: use the WKU blackboard website to access course tasks, materials, discussions, quizzes, assignments, and information.

You will need access to the WKU Blackboard course site via an internet connection – student labs are available on campus.

- Please check the course Blackboard site and your WKU email for messages.
- Additional course materials will be provided through Blackboard and in class.

Expectations and Important Information:

- Please review the course outline and check the tasks for each section to determine what needs to be completed for each section. The task list for each section can be found under "Course Documents" and then select the Section that is under study.
- All tasks to be completed will be posted under the task list in each section on Blackboard. This will allow you to determine what tasks you have and have not completed.
- Assignments for a Section will be posted under the "Assignments" folder for that section. All quizzes and tests will be posted under the "Test" folder for that section. The final project will be posted under "Course Documents" in the "Final Project" folder. Discussion questions will be posted under the "Discussion Board".
- You must complete all assignments, quizzes/tests, and the final project by the due date and time.
- Do not wait until the last minute to ask a question or upload a file pertaining to an assignment or the final project. If you have problems please post a question to the discussion board or call me on my cell phone.
- Access to course assignments, tests, activities, and projects will be through Blackboard.
- All assignments will have a due date and you will be expected to submit these through Blackboard.

1. For each assignment there will be a link under the Assignments folder for that section.
2. You will need to download the assignment document, complete your work, and then submit your completed assignment through the link for that assignment.
3. Always save your work on your computer or storage media. Also, save a backup on a disc or thumb drive. Additionally, you can save a copy to Blackboard.
4. Please note, once you submit an assignment you will not be able to go back and work on that assignment. You can save your work under each assignment by selecting the "Save" button under the link for a particular assignment. However, you must select the "Submit" button to turn in your work. If you accidentally select "Submit" before your assignment is completed you must post that you have done this on the Course Questions discussion and Dr. Taylor will clear the attempt. Just remember that this will delete your work that was saved on Blackboard. So you must have a backup on your computer or elsewhere.
5. Alternatively, you can save your document on blackboard and access it until complete, then submit when you are finished.

- All Quizzes will be on-line. Quizzes and tests may be T/F, multiple choice, matching, essay and other formats. Quizzes and tests will be graded through the Blackboard system.

1. Some quizzes and tests may allow multiple attempts (up to three).
2. All quizzes and tests will be for a specified time period.
3. All quizzes and tests are open note and open book.

4. All quizzes and tests are expected to be completed by the student enrolled in the class. If it is determined that a student has cheated on an exam, a failing grade will be given at a minimum.

- Required assignments and projects will be completed and submitted through the Blackboard system.
- Plagiarism will not be tolerated. You are expected to do your own work and cite all references. All papers will be evaluated for plagiarism using a computer tool. Do not copy the work of another student. If you are found to be plagiarizing there will be serious consequences, such as a failing grade in the course. University policy will be followed. Copying a paper of another student or directly from a source will result in a failing grade.

Quizzes – 20% of final grade – 200 points possible
Class exercises and discussions, including in class and online discussions – 40% of final grade – 400 points possible
WKU Graduate School Research Proposal on an Environmental and Occupational Health/Public Health topic: Each student will complete a research proposal. The grade for the proposal will include completing an outline, timeline/research map, budget, draft proposal, final proposal, and presentation. A final presentation will be completed that highlights the proposal. This presentation will be a maximum of 15 slides and a 10 minute presentation, unless a poster session is required. - 40% of final grade – 400 points possible
1000 points total

Notes:
Environmental Toxicology Case Studies will be a series of components or phases that will be submitted separately throughout the semester.
Course outline above shows items required for each section.

All assignments will be given a due date.
Late assignments will not be accepted.
Assignments can be submitted prior to the class meeting via email or turned in on the due date.
Assignments will be graded within one week of completion
Grade Scheme
A = 895 points or greater
B = 894 to 795
C = 794 to 695
D = 694 to 595
F = 594 or less
Syllabus Changes:
The professor reserves the right to make syllabus changes, dependent upon the needs of the class. For example, the class may dictate only two exams and more emphasis on applied environmental toxicology research.

Attendance Policy:

You will be expected to review all materials, complete assignment, tests, and the final project. The Blackboard site will be checked for your participation. Assignments and completion of tests will be taken as your participation.

Disability Statement:
"Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Disability Services, Room 101, Garrett. The OFSDS telephone number is (270) 745-5004 V/TDD."
"Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office of Student Disability Services."

Academic Dishonesty and Student Code of Conduct:
Academic dishonesty, which includes but is not limited to actions such as cheating and plagiarism, **will not be tolerated,** according to the WKU Student Handbook and WKU Student Code of Conduct. You are expected to follow the WKU Student Code of Conduct at all times in this course, as specified at:
http://wku.edu/judicialaffairs/student-code-of-conduct.php.

## Solid and Hazardous Waste Management EOHS 580

Professor:
Ritchie D. Taylor, Ph.D.
Director of Environmental and Occupational Health Science Programs
Director, Center for Environmental and Workplace Health

Address
Western Kentucky University Department of Public Health
Environmental and Occupational Health Science 1906 College Heights Blvd.
Bowling Green, KY 42101

Office AC 236D

Phone
(270) 745-8975

Email ritchie.taylor@wku.edu
Office Hours and Appointments:

Office hours will be established by the professor at the beginning of the semester and posted on office door.
You can meet with the professor during office hours or set up an appointment by email or after class.

Course Description:
Management of solid and hazardous wastes in the environment. Emphasis on regulatory compliance, control and remediation technologies, and environmental pathways.

Course Purpose:
The purpose of this course is to provide students with a background in hazardous materials, solid and hazardous waste management, and principles of hazardous materials for human and ecosystem health protection. As such, an emphasis of the course is application of scientific principles related to hazardous materials management, and solid and hazardous waste. A section of the course will address emergency management and preparedness as it relates to hazardous materials and wastes. Key components of the course will be application of the core competencies of assessment, management, and communication within hazardous materials management. The course will explore tools and techniques used in hazardous materials and waste3 management and research, as well as in emergency operations related to hazardous materials incidents.

Course content will begin with history, regulations, and basic scientific principles related to solid and hazardous wastes and materials management.
Characteristics of hazardous wastes and materials operations for the protection of human and ecosystem health will be covered. Finally, the course will culminate with students evaluating a hazardous waste or materials management problem, conducting a risk assessment, or assessing emergency operations and preparedness for a hazardous materials incident(s) within a community.

Prerequisites:

PH 584 – Environmental Health
PH 577 – Environmental Toxicology Or, Approval of the Instructor

Course Objectives:

Students will demonstrate an understanding of hazardous materials waste management concepts through discussions, exercises, and by completing examinations.
Students will evaluate procedures and methods in hazardous materials and waste management and will apply this knowledge within a class exercise.
Students will apply methods for managing hazardous and solid waste and will demonstrate this ability as part of their course work.
Students will develop an analysis of hazardous materials and waste management to protect human and environmental health (exercise).
Students will become familiar with environmental regulations pertaining to hazardous materials and waste management and will demonstrate their proficiency by leading a course discussion.

Students will analyze hazardous waste sampling data to evaluate a cleanup site using statistical software (exercise).
Students will evaluate a chemical spill scenario with the CAMEO computer system for hazardous materials and emergency response management (exercises).

Course Credit:

Three (3) hours of college credit at the graduate level

Course Format:
Lecture, Discussion, and Participation
Review relevant Literature
Guest Speakers
Field Trips and Class Project
Student presentations
Student led discussions and presentations
Student Work Groups

Course Outline:
Introduction
Introduction to the Course
Review of Syllabus
Course Materials, Texts, and Resources
Hazardous Materials Software and Tools
Introduction to Hazardous Materials
Griffin – Read Chapter 1
Section 1: Hazardous Materials, Toxicology, Health Effects, and Safety
Griffen - Read Chapter 2
Discussion 1 – Historical Hazardous Materials Event
Exercise 1 – Local Assessment of Hazardous Materials and Exploration of Toxicology Information Sources
Section 2: Risk and Risk Assessment
Griffen - Read Chapter 3
Types of Risks
The Risk Assessment Process
Uncertainties
Approaches and Criteria
Discussion 2 – Risk vs. Risk
Exercise 2 – Screening Levels and Risk Management
Quiz 1 – Sections 1 and 2

Application of a Hazmat Tool: CAMEO
Griffen – Read Chapter 6

Downloading and Installing CAMEO
Components of CAMEO
Review of Air Toxics in CAMEO
Griffen – Read Chapter 3
Discussion 2.1: Air Toxics Risk Assessment in CAMEO
Exercise 2.1 - CAMEO Practice Exercise
Section 3: Hazardous Materials Contamination of Soils and Groundwater
Griffen – Read Chapter 5
Principles of Hydrology and Hydrogeology
Contamination of Groundwater
Mitigation and Treatment
Discussion 3: Hazardous Materials Contamination of a Water Source
Exercise 3: Case Study
Section 4: Hazardous Materials Management
Griffen – Read Chapter 7
Introduction to Hazardous Materials Transport and Incidents
Exercise 4
Quiz 2 – Sections 3 and 4, and CAMEO (Material Covered)
Section 5: Waste Characterization and Analytical Methods
Griffen – Read Chapter 8
Sampling and Handling
References
Sample Matrices
Analytical Methods and Techniques
Exercise 5 – Developing Waste Characterization Objectives
Section 6: Waste Treatment and Disposal
Griffen – Read Chapter 9
Review of Treatment and Disposal Methods
Exercise 6
Quiz 3 – Sections 5 and 6
Final Exam – All Sections

Remaining Sections to be posted on Blackboard. The needs of the class and the timing of the semester will dictate if we complete all sections or only six.

Texts and Materials:
Required Text

Griffin, R. D. (2009). *Principles of hazardous materials management*. Boca Raton: CRC Press.
Supplemental Materials

Noll, G. G., Hildebrand, M. S., & Yvorra, J. G. (1995). *Hazardous materials: Managing the incident*. Stillwater, OK: Fire Protection Publications, Oklahoma State University.

NIOSH. 2007. NIOSH Pocket Guide to Chemical Hazards. Department of Health and Human Services, Center for Disease Control and Prevention, National Institute for Occupational Safety and Health (NIOSH). NIOSH Publications. Cincinnati, OH. http://www.cdc.gov/niosh/npg/. 454 pp.
U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration. 2012. 2012 Emergency Response Guidebook. Washington, D.C. http://www.phmsa.dot.gov/hazmat/outreach-training/erg. 392 pp.
U.S. EPA. 2014. RCRA Orientation Manuel. Washington, D.C. http://www2.epa.gov/sites/production/files/2015-07/documents/rom.pdf
U.S. EPA. 2014. CAMEO Suite of Software – Free - http://www2.epa.gov/cameo - download and install on your computer
U.S. EPA – Emergency/Incident Planning, Response, and Recovery http://water.epa.gov/infrastructure/watersecurity/emerplan/#te
U.S. National Library of Medicine. 2015. Wireless Information System for Emergency Responders (WISER). http://wiser.nlm.nih.gov/about.html.
Weber, C. 2012. Hazardous Materials Operations. Pearson. Upper Saddle River, NJ. 400 pp.
Other free resources will be used during the course

Online and Computer Resources

You will need access to computer capable of running the CAMEO System: https://www.epa.gov/cameo and an internet connection
Course Web Site: WKU Blackboard System
You will need access to World Wide Web
Links for Specific Assignments
Course Materials will be provided via Blackboard
Please use you WKU email account to check for messages
Please check Blackboard on a regular basis for information and course materials

Supplemental Materials:

Library
Websites
Technical Documents

Expectations:

The professor will follow all of these expectations.
Students are expected to use proper classroom etiquette (absolutely no improper language).
Ability to communicate through discussions and in writing in a clear, effective, and timely manner.
Only send emails that pertain to the course.
Be courteous and thoughtful to classmates and the professor.

Explain all of your ideas and points within an assignment.
Be willing to communicate openly and thoughtfully.
Have fun learning and give us feedback on your learning experience.
Ask for help when you need it.
Course Grading:

All assignments will be given a due date in each section in the List of Tasks for each section.
Late assignments will not be accepted.
All Assignments will be submitted through Blackboard.
Assignments will be graded within one week of completion.

Course Requirements and Points:
Discussions – 20% of final grade – 200 points possible
Quizzes – 20% of final grade – 200 points possible
Class exercises and assignments – 50% of final grade – 500 points possible (Four exercises worth 100 points each; Two worth 50 points each)
Final Exam (Comprehensive and including Sections 5 and 6) – 10% - 100 points
1000 points total

Course Grading:
★ All assignments will be given a due date.
★ Late assignments will not be accepted.
★ Assignments can be submitted prior to the class meeting via email or turned in on the due date.
★ Assignments will be graded within one week of completion
★ Grade Scheme
A = 895 points or greater
B = 795 points or greater
C = 695 points or greater
D = 595 points or greater
F = 594 and below

Attendance Policy

You are expected to be at all class meetings. You will not be excused from in class participation unless you give prior notice and get professor approval.

Syllabus Changes

The professor reserves the right to make syllabus changes, dependent upon the needs of the class.
For example, the class may dictate only one exam and more emphasis on applied solid and hazardous waste management.

Disability Statement: "Students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Disability Services, Room 101, Garrett. The OFSDS telephone number is (270) 745-5004 V/TDD." "Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office of Student Disability Services."

Academic Dishonesty and Student Code of Conduct:
Academic dishonesty, which includes but is not limited to actions such as cheating and plagiarism, will not be tolerated, according to the WKU Student Handbook and WKU Student Code of Conduct. You are expected to follow the WKU Student Code of Conduct at all times in this course, as specified at: http://wku.edu/judicialaffairs/student-code-of-conduct.php.

**PH 503- Health Assessments in the Workplace**

Instructor: Dr. Gretchen Macy

Office: AC 128D Office Phone: 270-745-5870

Office Hours: Mondays and Tuesdays 11:30-12:30. Other hours available by appointment.

Email: gretchen.macy@wku.edu

Recommended Text/Materials:

O'Donnell, M.P., Health Promotion in the Workplace 4th ed. (2014), American Journal of Health Promotion ISBN 978-1502509468.

Pronk, N.P., ACSM's Worksite Health Handbook 2nd ed. (2009), Human Kinetics ISBN 978-0-7360-7434-6

Course Description:

This course presents concepts and teaches skills needed to assess health status at the individual, organizational, and community levels in a workplace wellness environment. Emphasis is placed on, but not limited to, physical and psychological components of health

Course Objectives:

Demonstrate correct procedures for planning individual, organizational, and community level health assessments.

Analyze and interpret the results of health assessment tools at the individual, organizational, and community levels and communicate the results to various stakeholders.

Critique current health assessment tools by identifying strengths and weaknesses.

Apply assessment results to guide recommendations for worksite health promotion programming.

Course Assessments:

Application Assignments (100 points):

For each module there will be an application activity that requires students to utilize information from lecture to assess a workplace issue. Each assignment will require students to apply the assessment process or results to a real world scenario. Assignments are 10 points each. *Objectives: 1,2,3,4*

Assessment Application Papers (300 points):

Students will be required to use the results of a hypothetical individual, organizational and community level assessment to write a report and make suggestions/recommendations based on the results.

The reports should be typed, double-spaced with font no larger than 12-pt. The format should follow APA style throughout. Detailed assignment description and rubric are located on Blackboard. *Objectives: 2,4*

Quizzes (200 points; 20 points each):

Most modules will have one multiple-choice quiz. The quiz will cover the information covered in each respective module. Students will have one attempt for each quiz. *Objectives: 1,2,3,4*

Grading:

| | |
|---|---|
| Application Assignments | 100 pts |
| Quizzes | 200 pts |
| Individual Assessment Report | 100 pts |
| Organizational Assessment Report | 100 pts |
| Community Assessment Report | 100 pts |
| Total | 600 pts |

Grades are based upon university standards.

A= 90% or above

B= 80-89%

C= 70-79%

D= 60-69%

F= 59% or below

Academic Dishonesty

Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without possibility of withdrawal. The faculty member may also present the case to the Office of Judicial Affairs for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure.

Title IX Sexual Misconduct/Assault

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding

WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at

https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and

Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the

University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Disability Accommodations

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in

Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

| Class/Date | Topic | Assignments |
|---|---|---|
| Module 1 | Introduction; Syllabus | |
| Individual Level Assessments | | |
| Module 2 | Health Risk Appraisals<br>Biometric Screening | O'Donnell Chapter 13 |
| Module 3 | Nutrition Assessments<br>Physical Activity Assessments | O'Donnell Chapter 15<br>O'Donnell Chapter 14<br>Pronk Chapter 17 |
| Module 4 | Employee Health and Interest Survey | O'Donnell Chapter 13 |
| Module 5 | Project Work Day | |
| Module 6 | Present Individual Level Health Assessments Projects | |
| Module 7 | Midterm | |
| Organizational Level Assessments | | |
| Module 8 | HERO Scorecard<br>CDC Health Scorecard | Pronk Chapter 17 |
| Module 9 | Environmental Assessments | Pronk Chapter 17 |
| Module 10 | Project Work Day | |

| | | |
|---|---|---|
| Module 11 | Presentations on Organizational Assessments | |
| Community Assessments | | |
| Module 12 | Built Environment | Pronk Chapter 31 |
| Module 13 | Community Health Assessments | http://wwwn.cdc.govCommunityHealth/PDF/Final_CHAforPHI_508.pdf |

*This is a tentative outline for the semester. All dates are subject to change.*

**Industrial Hygiene (EOHS 570)**

Instructor: Vijay Golla, PhD, MPH, MBBS

Office: AC 200C

Phone: (270) 745-2448

E-mail: vijay.golla@wku.edu

Office Hours: M, T, W, TR (By appointment)

Lectures: Monday: 12:40 PM to 1:35 PM at Academic Complex Room # 412

Recommended Textbook

The Occupational Environment –Its Evaluation, Control, and Management 3rd edition, edited by Daniel H. Anna, American Industrial Hygiene Association, 2011, ISBN: 978-1-935082-15-6

Additional Readings

Material handed out in the class or posted on Blackboard.

Required Material: A scientific calculator - You will bring your calculator with you to each class. Any Internet-based electronic devices (e.g., cell, laptop, tablet) will not be usable to calculate the problems during quizzes and exams.

Course Description

Industrial Hygiene is a science devoted to the protection and improvement of the health and well-being of workers exposed to chemical, physical and biological agents in their work environment. This course gives students a basic introduction to the field of industrial hygiene and encompasses a survey of the effects of toxic agents on the body and general methods of control. Learning methods include lectures, discussions, readings, presentations, field-trips, and in-class or small group activities.

Course Objectives

Develop an understanding of the fundamental concepts and methods of industrial hygiene,

Recognize the potential hazardous substances and exposure scenarios for specific chemical, physical, and biological agents in occupational environments,

Scientifically evaluate and discuss the contemporary industrial hygiene issue through a scientific literature,

Develop strategies for evaluation and controlling chemical, physical, and biological agents,

Apply and identify appropriate sampling strategies for the assessment of occupational exposures, and

Gain knowledge about hazards associated with industrial establishments and processes.

ADA Policy: In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a Faculty Notification Letter (FNL) from The Student Accessibility Resource Center.

Title IX Sexual Misconduct/Assault

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at

https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and

Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the

University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Student Responsibilities and Assessments

Attendance: (See University Policy)

Students are expected to attend each class session and to be on time. You are also expected to be prepared to participate in discussions and group activities. Absence will be recorded for each class session. Excessive absenteeism (missing five or more classes), will result in a 10 point reduction in final score. The instructor should be notified by e-mail at least 24 hours in advance

if a student is unable to attend. Students who miss class should make arrangements with classmates to get announcements and handouts.

WKU Writing Center: Students are encouraged to use the services of the Writing Center for their projects/papers. Face-to-face and online reviews are available. You can find the Writing Center at https://www.wku.edu/writingcenter/

Every student is expected to participate in and contribute to all exercises, discussions, and assignments. Grades are determined by 10 homework quizzes/assignments (20 points each), a mid-term exam (100 points), and a final exam (100 points), totaling=400 points. Homework assignments will be in association with class room lectures. If students fully understand the homework exercises they should do well on the examinations.

Final Course Grade

360 and above : A

320 to 359 : B

280 to 319 : C

240 to 279 : D

239 and below: F

Course Calendar

| Week | Class Title | Material provided by Instructor (MPI)<br>Chapter Reading from OEEC (Optional) |
|---|---|---|
| Week 1 | Introduction/ Review | MPI |
| Week 2 | Air Contaminants | 11* |
| Week 3 | Sampling and Analyzing Aerosols | 12* |
| Week 4 | Indoor Air Quality | 12* |
| Week 5 | Direct Reading Instrumentation | 12* |
| Week 6 | Microbiology Review and Bioaerosols | MPI |
| Week 7 | Bioaerosol Sampling and Analysis | 14* |
| Week 8 | Dermal Exposure Assessment | 14* |
| Week 9 | Radiation | MPI |
| Week 10 | Biological Monitoring | 13 * |

| | | |
|---|---|---|
| Week 11 | Collection and Analysis of Biomonitoring Samples | 25* |
| Week 12 | Controls | 21* |
| Week 13 | Hearing Physiology | 20* |
| Week 14 | Noise Physics & Noise Exposure Assessment | MPI & 20* |

*Note: Material will be provided by the instructor for applicable topics

MPH Competencies

This course contributes to the development of the following competencies:

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

| | |
|---|---|
| 14. Advocate for political, social or economic policies and programs that will improve health in diverse populations | |
| 15. Evaluate policies for their impact on public health and health equity | |
| Leadership | |
| 16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making | |
| 17. Apply negotiation and mediation skills to address organizational or community challenges | |
| Communication | |
| 18. Select communication strategies for different audiences and sectors | |
| 19. Communicate audience-appropriate public health content, both in writing and through oral presentation | |
| 20. Describe the importance of cultural competence in communicating public health content | |
| Interprofessional Practice | |
| 21. Perform effectively on Interprofessional teams | |
| Systems Thinking | |
| 22. Apply systems thinking tools to a public health issue | 1-6 |

| WKU MPH Program Competencies | |
|---|---|
| 23. Apply health behavior theories and models to address public health problems. | |
| 24. Describe the role of budgeting; methods of seeking extramural funding; and methods of financial analysis in making decisions about policies, programs and services. | |
| 25. Describe the roles of history, power, privilege and structural inequality in producing health disparities. | |
| 26. Integrate social determinants into public health science, practice, and research. | |
| 27. Identify the direct and indirect population health effects of environmental hazards (biological, chemical and physical) on humans, animals and the ecology. | 2, 4 |

Academic Offenses (As in WKU's Student Handbook)

https://www.wku.edu/studentconduct/process-for-academic-dishonesty.php

*Academic Misconduct*

*The University expects students to operate with the highest standard of integrity in all facets of the collegiate experience. Broadly defined, academic misconduct is any unethical self-serving action in the performance of an academic activity, deliberate or unintentional, that affords a student an unfair, unearned, or undeserved advantage. (Excerpt from the WKU Student Handbook, 2016)*

*The maintenance of academic integrity is of fundamental importance to the University. Thus, it should be clearly understood that acts of plagiarism or any other form of cheating will not be tolerated and that anyone committing such acts will be held accountable for violation of the student code of conduct.*

*Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without possibility of withdrawal. The faculty member may also present the case to the Office of Student Conduct.*

*Dishonesty*

*Such as cheating, plagiarism, misrepresenting of oneself or an organization, knowingly furnishing false information to the University, or omitting relevant or necessary information to gain a benefit, to injure, or to defraud is prohibited.*

*Cheating*

*No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment or other project which is submitted for purposes of grade determination.*

*Plagiarism*

*To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious act. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism.*

Plagiarism Detection Software

In this course we will be using an electronic plagiarism detection tool, "Safe Assign" on Blackboard, to confirm that you have used sources accurately in your reports/ papers. All written assignments are subject to submission for text similarity review.

Any student found guilty of plagiarism, fabrication, cheating on an exam, or purchasing papers, speeches, or other assignments will immediately receive a failing grade on the assignment and potentially in the course, and will be reported for disciplinary action. Falsified medical excuses and presenting another student's work as your own violate the principles of academic integrity as per the guidelines of the academic integrity policy of WKU and the department of Public Health. Such academic misconduct will not be permitted and appropriate disciplinary measures will be taken. If you have any questions about whether you may be plagiarizing in your work, please be sure to contact me well in advance of the due date for your assignment.

Environmental and Occupational Epidemiology (EHS 572)

Instructor: Vijay Golla, PhD, MPH

Office: AC 128C

Phone: (270) 745-2448

E-mail: vijay.golla@wku.edu

Office Hours: Monday and Tuesday, 9:00 am to 12:30 pm

(Or by appointment)

Lectures: Tuesday: 4 PM to 6:45 PM at Academic Complex Room # 409

Recommended Textbook

Research Methods in Occupational Epidemiology, Second Edition - By Harvey Checkoway, Neil Pearce, and David Kriebel 2004 - ISBN 0-19-509242-2, Oxford University Press, New York

(available at the WKU bookstore)

Additional Readings

Material handed out in the class or posted on Blackboard

Course Description

The course will introduce students to the research approaches for the epidemiologic study of the environmental and workplace hazards. This course involves the study and reasoning of environmental and occupational epidemiologic study designs, basic and novel methods of characterizing exposures, and techniques for designing epidemiologic studies and implementing methods to improve the evaluation of research in these fields. Learning methods include lectures, discussions, readings, videos, presentations, and in-class or small group activities.

Course Objectives

Define, explain, and correctly use terms and concepts used in environmental and occupational epidemiology and exposure assessment;

Recognize situations where exposure assessment plays a critical role; and

Formulate strategies to apply the concepts of exposure assessment to solve problems in epidemiology and environmental and occupational health.

Develop an understanding of the important challenges students will face in their professional careers in the areas of environmental health, occupational health, and exposure assessment.

Develop academic skills that include computer-aided literature searching, investigating a topical area of interest in environmental and occupational epidemiology, and preparing an oral presentation and a written report.

Student Responsibilities and Assessments

Class attendance will be documented. Every student is expected to participate and contribute in all exercises, discussions, and assignments. There will be 10 assignments on environmental and occupational epidemiological studies/data analysis using SAS that account for 40% of the course grade. There will be journal article reviews that account for 20% of the course grade. The mid-term exam accounts for 20% of the course grade, and the final exam accounts for 20% of the course grade. The final exam covers material from the entire course.

Final Course Grade

90% and above: A

80% to 89% : B

70% to 79% : C

60% to 69% : D

59% and below: F

Disability Statement

In compliance with university policy, students with disabilities who require accommodations (academic adjustments and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in DUC A-200 of the Student Success Center in Downing University Center. The phone number is 745 5004.

Please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the Office for Student Disability Services.

Course Outline

Introduction to Environmental and Occupational Epidemiology

Review of core concepts of Epidemiology and Biostatistics

Overview of Environmental assessment and control

Industrial hygiene principles

Occupational safety principles

Overview of Occupational Hazards:

Chemical hazards

Physical hazards: noise, heat, radiation

Biological hazards

Ergonomics

3. Occupational disease

Recognizing and preventing occupational disease

Occupational diseases of:

Nervous system, Skin and Eye

Respiratory disease

Musculoskeletal and Hematologic systems

4. Epidemiological Data analysis and Case studies

Overview of the research process

Data overview

Identification of risk factors for disease/impairment

Cross sectional, case control and prospective study designs

Data coding and entry

Datasets, databases, and data analysis

Data Presentation

Academic Offenses (As in WKU's Student Handbook)

*The maintenance of academic integrity is of fundamental importance to the University. Thus, it should be clearly understood that acts of plagiarism or any other form of cheating will not be tolerated and that anyone committing such acts risks punishment of a serious nature.*

*Academic Dishonesty*

*Students who commit any act of academic dishonesty may receive from the instructor a failing grade in that portion of the course work in which the act is detected or a failing grade in a course without possibility of withdrawal. The faculty member may also present the case to the Office of the Vice President for Student Affairs. for disciplinary sanctions. A student who believes a faculty member has dealt unfairly with him/her in a course involving academic dishonesty may seek relief through the Student Complaint Procedure.*

*Plagiarism*

*To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism.*

*Cheating*

*No student shall receive or give assistance not authorized by the instructor in taking an examination or in the preparation of an essay, laboratory report, problem assignment or other project which is submitted for purposes of grade determination.*

*Other Types of Academic Dishonesty*

*Other types of academic offenses, such as the theft or sale of tests, should be reported to the Office of the Vice President for Student Affairs. for disciplinary sanction.*

Plagiarism Detection Software

In this course we will be using an electronic plagiarism detection tool, "Safe Assign" on Blackboard, to confirm that you have used sources accurately in your reports/ papers. All written assignments are subject to submission for text similarity review here.

Any student found guilty of plagiarism, fabrication, cheating on an exam, or purchasing papers, speeches, or other assignments will immediately receive a failing grade on the assignment and potentially in the course, and will be reported for disciplinary action. Falsified medical excuses and presenting another student's work as your own violate the principles of academic integrity as per the guidelines of the academic integrity policy of WKU and the department of Public Health. Such academic misconduct will not be permitted and appropriate disciplinary measures will be taken. If you have any questions about whether you may be plagiarizing in your work, please be sure to contact me well in advance of the due date for your assignment.

**Education & Communication Techniques PH 576 -700**

Instructor: Grace Lartey, PhD

Office: AC 129D (south entrance)

Office Hours: by appointment

Office Phone: 270-745-3941

E-mail: grace.lartey@wku.edu

Required Texts

Robert J. Bensley, Jodi Brookins-Fisher (2009). (3nd ed). *Community Health Education Methods: A Practical Guide*. Boston: Jones and Bartlett Publishers.

U.S. Department of Health and Human Services (2002). *Making Health Communication Programs Work: 'The Pink Book'* Public Health Service, National Institutes of Health National Cancer Institute. Free at http://www.cancer.gov/publications/health-communication/pink-book.pdf

Course Description

An overview of public health educational techniques used in the planning and implementation of public health education, and health promotion programs. An overview of education and communication techniques and social marketing principles used at the community, institutional, and individual levels will be presented. Steps involved in the planning and development of materials as well as marketing of public health education programs will be discussed. Students will develop skills in program planning and development, implementation and evaluation of program materials.

Course Goals

1. To provide students with an opportunity to develop the skills required to develop materials for a program regardless of the setting or population.

2. To involve students in the development of program activities (may utilize data to conceptualize program materials, develop materials, plan the sequencing and implementation of materials, develop marketing materials, and develop an evaluation plan to assess effectiveness of the materials) for selected health-related problems in the community.

Course Objectives

Upon successful completion of the course, the student will be able to:

1. Discuss the role and importance of involving community representatives in the planning and development of program materials.
2. Retrieve, interpret, and synthesize health-related data and information in the planning and development of program materials.
3. Design ethical, culturally-relevant, communication methods through the application of health education theoretical constructs.
4. Apply communication theory and principles in the development of health education materials; use a logic model to show how program materials/components align to result in the desired end point.
5. Formulate appropriate and measurable health communication / social marketing program objectives.
6. Identify and justify the selection of educational methods, media and resource materials used to provide health information to selected audiences.
7. Design an intervention and marketing plan to address a health problem.

Course Policies

All assignments must be typed. Use APA style for all assignments (https://owl.english.purdue.edu/owl/section/2/10/)

This course is conducted entirely on Blackboard. Blackboard uses WKU email addresses unless students specify otherwise. Make sure your mailbox is kept under limit in order not to miss messages.

WKU Policy on Plagiarism

To represent ideas or interpretations taken from another source as one's own is plagiarism. Plagiarism is a serious offence. The academic work of students must be their own. Students must give author(s) credit for any source material used. To lift directly from a source without giving credit is a flagrant act. To present a borrowed passage after having changed a few words, even if the source is cited, is also plagiarism. Students work may be checked using plagiarism detection software.

WKU Policy on Cheating

No student shall receive or give assistance not authorized by the instructor in taking examinations or in the preparation of an essay, laboratory report, problem assignment, or other project that is submitted for purposes of grade determination.

Other Types of Academic Dishonesty

- taking an exam, test or quiz in a course and discussing it with students who take the test at a later time.

- taking a test for someone else.

- submitting the same assignment to two separate courses without consent of the instructor.

- helping another student cheat and/or plagiarize.

- sabotaging another student's work.

ALL work submitted must be YOUR work!

ADA Policy:
In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu. Please do not request accommodations directly from the professor or instructor without a Faculty Notification Letter (FNL) from The Student Accessibility Resource Center.

*Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at*

*https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf*

*Discrimination and Harassment Policy (#0.2040) at*

*https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.*

Requirements

1. Completion of chapter essays.

2. Completion of 4 projects/papers. Reference all sources (APA style).

Overview of Criteria for Evaluation

| | Assignment | Course Objectives Met by this Assignment | Assessment of Objectives | Points |
|---|---|---|---|---|
| 1 | Internet assignment | 2, 3, 5, 6 | Completion of assignment; essays | 50 |

| | | | | |
|---|---|---|---|---|
| 2 | Report of Historical Communication Campaign | 1, 2, 6, 7 | Completion of assignment; essays | 50 |
| 3 | Critique of an article addressing communication methods used in an intervention | 1, 2, 3, 4, 6 | Completion of assignment; essays | 20 |
| 4 | Report of Health Program Plan and Materials | 1, 2, 3, 4, 5, 6, 7 | Completion of assignment; essays | 100 |
| 5 | Chapter Essays | 1, 2, 3, 4, 5, 6 | Essays | 100 |
| | Total Points | | | 320 |

All assignments MUST be completed to get a grade in the course. Points accumulated for each assignment will be summed to determine the grade in the course. Grades for the course will be assigned in accordance with University guidelines.

A = 288 – 320

B = 256 – 287

C = 224 – 255

D = 192 – 223

F = < 192

**PH630: Advanced Epidemiology**

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Academic Complex (AC), Room 0118, Tuesdays 12:45 – 3:40pm

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Instructor Information

Instructor: Dr. Xiuhua (pronounced Shoowah) Ding

Office Location: Academic Complex 127C

Email: xiuhua.ding@wku.edu

Office Phone: 270-745-3618

Office Hours: Mondays & Wednesdays, 9:00am-12:00pm (or by E-mail appointment)

Email is the best way to reach me. I try to respond to all emails within 24 hours (48 over weekends). If you've not heard back from me by then, please re-email me. Please put the course name in the subject line. See course site for additional details on how to reach me.

Pre-requisites

PH582 or consent of instructor

Epidemiology: Beyond the Basics, Third Edition (paperback)
Moyses Szklo, MD, DrPH, Johns Hopkins School of Public Health, Javier Nieto, MD, PhD, University of Wisconsin Medical School, Wisconsin Publication Date: October 24, 2012 | ISBN-10: 1449604692 | ISBN-13: 978-1449604691 | Edition: 3

Course description

This course provides students with the understanding of advanced issues in the design, analysis, and interpretation of epidemiologic studies. The course text and associated readings will focus on study designs and the methodologic approaches to addressing bias, confounding, and error in the design of population-based health research. The development of a systematic approach for evaluating evidence from epidemiologic studies as it relates to demonstrating causality will be emphasized. Focusing on study design, measures of associations, confounding, interaction, sources of bias and error, the student will gain an understanding of epidemiology and its role in the medical and public health sciences.

MPH Competencies:

Upon graduation a student with an MPH should be able to…

1. Apply epidemiological methods to the breadth of settings and situations in public health practice
2. Select quantitative and qualitative data collection methods appropriate for a given public health context
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
4. Interpret results of data analysis for public health research, policy or practice
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels
7. Assess population needs, assets and capacities that affect communities' health
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
9. Design a population-based policy, program, project or intervention
10. Explain basic principles and tools of budget and resource management

11. Select methods to evaluate public health programs
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations
15. Evaluate policies for their impact on public health and health equity
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making
17. Apply negotiation and mediation skills to address organizational or community challenges
18. Select communication strategies for different audiences and sectors
19. Communicate audience-appropriate public health content, both in writing and through oral presentation
20. Describe the importance of cultural competence in communicating public health content
21. Perform effectively on interprofessional teams
22. Apply systems thinking tools to a public health issue
23. Apply health behavior theories and models to address public health problems.
24. Describe the role of budgeting; methods of seeking extramural funding; and methods of financial analysis in making decisions about policies, programs and services.
25. Discuss theoretical models and methods used to understand, explain, and ameliorate health disparities.
26. Integrate social determinants into public health science, practice, and research.
27. Identify the direct and indirect population health effects of environmental hazards (biological, chemical and physical) on humans, animals and the ecology.

Please note that one course cannot make you "competent" in any discipline. As such, at the end of this *course*, you should not expect to be able to do all of these things well. You will, however, have – at minimum – exposure to topics that comprise each competency.

Course Objectives:

After completion of this course in Advanced Epidemiology the student will be able to:

Differentiate between epidemiologic study designs and assess their relative strengths.

Distinguish among multiple approaches to measuring disease frequency, association, and impact, and apply appropriate measures to various study designs.

Evaluate the potential for confounding and interaction in epidemiologic data and propose several approaches for addressing these validity issues in epidemiologic research.

Critique the issues associated with sample size estimation and the precision of estimates in the design and evaluation of epidemiologic research.

Perform and interpret stratified analysis of epidemiologic data for point and interval estimation of measures of association for typical study designs.

Compare and contrast interpretation, strengths, limitations, and assumptions associated with using various statistical modeling procedures for the analysis of epidemiologic data.

Evaluate epidemiologic literature in a systematic and critical manner in assessing the "state-of-the-science

Course Structure

The course will consist of seminar/discussion classes, lectures, and self-study. The course will be enhanced by an online component in Blackboard which will provide resources for accessing class materials including assignments and readings. Students will be required to complete a series of problem sets, take a midterm and final exam, and complete an applied data analysis project.

Blackboard

All course materials will be posted on the Western Kentucky University Blackboard, at https://www.wku.edu/it/blackboard/. To log in to Blackboard, you must use your active directory account. The Blackboard environment will permit students to discuss problems and assignments with each other and will allow the instructor to make general announcements to the class through the announcements frame or the e-mail facility. It is recommended that you check in at Blackboard at least once early.

Requirements and Evaluation

*Exams (300 points)*

There will be two in-class exams. Each exam worth 150 points. Each exam is proctored, closed-notes, and requires a calculator. The only things you will need to bring are a calculator and pencils with an eraser; paper for computations will be provided and must be turned in to the test proctor. There will be no lectures on exam dates.

*Assignment (400 points)*

There are four problem sets in total. Each assignment worth 100 points. The assignments involve applied computations relevant to epidemiologic analysis. The assignments must be completed and handed in on the due date. The assignments must be a student's own work (i.e. each student must turn in a completed assignment) but students are encouraged and allowed to work together in solving the problems and assisting each other with the exercises. Points will be deducted for problem sets which are submitted after the due date. Selected portions of the

problem sets will be discussed in the class. The assignments must be completed and handed in on the due date by the start of class.

| Number | Topic | Due Date |
|---|---|---|
| Set #1 | Measures of frequency and association | September 27 |
| Set #2 | Case control studies, confounding, and other biases | October 17 |
| Set #3 | Interaction assessment | November 07 |
| Set #4 | Multiple logistic regression | November 28 |

*Applied Data Analysis Project (200 points):*

The analysis project for the course requires that you apply some of the analytic techniques that we will be discussing to the analysis of a "real dataset". The primary objective of this assignment is to provide you with further experience in the interpretation and presentation of epidemiologic data. Your course instructor will be selecting one or two datasets which will be used for this project. The datasets will be accessible in Blackboard as either an SPSS or SAS file. If you work with other data analysis packages, we can also convert these files as needed. Documentation of the variables in the dataset and guidance regarding the data collection procedures to generate the dataset will be given. In addition, some general research questions will be provided and perhaps a brief sketch of an analysis plan; however, the operational decisions regarding how to analyze the data will be made by you. Additional information on this project will be distributed in the class.

You are required to provide a written report which incorporates the methods and results of your statistical analysis of the dataset used for the class. The final report should be in the form of a brief manuscript. This manuscript should include only the results that address your research questions/hypotheses, or specific aims. The manuscript should follow the American Psychological Association (APA) guidelines for the preparation of manuscripts (www.apastyle.org). The assignment is worth 200 points. Further details regarding the report format and grading for the project will be provided in the class. The manuscript needs to be typed as a double-spaced document with one inch margins. All references, figures and tables need to be presented in APA format (Please refer: https://owl.english.purdue.edu/owl/resource/560/01/). Correct grammar, syntax, and spelling are expected.

This course and the project are premised on the conviction that the best way to learn about epidemiologic data analysis is to *DO* it—not just read about it. Since there are numerous different computers, operating systems, and statistical software packages for performing data analysis, this course cannot, of necessity, focus on all the technical details regarding reading data files and operating the software. This course assumes that you already have some basic experience in the use of the personal computer and statistical software. If not, the class will have several lab sessions to teach and assist students to use SAS.

The research projects can be handed in hard copy or electronically on the due date.

*Grading*

| Assignments and Tests | Points |
|---|---|
| Mid-term examination (in class = 150 points) | 150 |
| Problem Sets (4) 100 points for each. | 400 |
| #1 Measures of frequency and association | 100 |
| #2 Case control, confounding, and other biases | 100 |
| #3 Interaction assessment | 100 |
| #4 Multiple logistic regression | 100 |
| Applied data analysis project | 200 |
| Final Exam (in class = 150 points) | 150 |
| TOTAL | 900 |

Letter grades for the course will be assigned on a percentage basis (as given below) for the student's total score as a percentage of the total number of points possible for the course.

| Grade | % | Points (3 credit) |
|---|---|---|
| A | 90-100 | 810-900 |
| B | 80-89 | 720-809 |
| C | 70-79 | 630-719 |
| D | 60-69 | 540-629 |
| F | < 60 | < 539 |

<u>Instructor expectations</u>

I expect you to attend every class session. The components are highly interrelated; missing a class will detract from the learning potential of subsequent sessions.

I expect you to be in the classroom and prepared to begin work at the scheduled starting time for each session.

I expect you to actively participate in discussions and case studies.

I expect (and encourage) you to provide honest and timely feedback regarding the content and process of this course throughout the semester.

I expect you to share in the responsibility for making this course an enjoyable and beneficial learning experience.

Academic Integrity

Students are expected to abide by the WKU Student Code of Conduct. WKU has zero tolerance for academic dishonesty. All assignments and exams are to be completed by you, the student. Any observed cheating will be dealt with in accordance with WKU policies. Plagiarism cannot be tolerated in this course. Please note that every student's assignment submitted or posted on Blackboard may be checked using a variety of plagiarism detection software.

Students with Disabilities

In compliance with university policy, students with disabilities who require accommodations (academic adjustments, and/or auxiliary aids or services) for this course must contact the Office for Student Disability Services in Downing University Center A 200. The phone number is 270-745-5004; TTY is 270-745-3030. Per university policy, please DO NOT request accommodations directly from the professor or instructor without a letter of accommodation from the OFSDS."

Complaints

Students with suggestions or complaints should see me first, and if we cannot come to an agreement, I will direct you to the head of the department.

Title IX Sexual Misconduct/Assault

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding

WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at

https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf and

Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the

University and MUST report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

Religious Observances

Students will be given the opportunity to make up work (typically, exams or assignments) when students notify their instructor that religious observances prevent the student from completing assignments according to deadlines stated in this syllabus. Students must notify the course instructor at least two weeks prior to such an absence and propose how to make up the missed academic work.

Class Policies:

If you have a cell phone it is to be off during class time.

All assignments are due by the date and time listed in the syllabus unless otherwise noted. Assignments will not be accepted beyond the time they are due.

The Professor must be contacted prior to any due date to negotiate any alternative arrangements.

Additional assignments for extra credit will not be given, please don't ask.

Attendance is checked time to time.

The Professor must be notified by e-mail or telephone if the student is unable to attend prior to the start of class.

It's the student's responsibility to get class notes and catch up with any missed work. It is assumed that assigned readings and assignments will be done prior to class.

All work must be submitted to the instructor on blackboard.

All rebuts to grades earned must be made in writing and turned in within one week after receiving the grade.

Course Schedule

| Week | Topics of Discussion | Assignment/ Reading Chapter |
|---|---|---|
| 1 | (8/21-8/25)<br>Orientation / Review study designs | Chapter 1 page 14-38 |
| 2 | (8/28 – 9/1)<br>Age, period, and birth control effects | Chapter 1 Szklo. 1 -14 |
| 3 | (9/5 - 9/8)<br>Measurement of disease occurrence (life table method) | Chapters 2 |
| 4 | (9/11 - 9/15)<br>Measurement of association | Chapter 3 |
| 5 | (9/18 - 9/22)<br>Confounding | Chapter 5 |
| 6 | (9/25 - 9/29)<br>Bias-selection bias | Chapter 4<br>(Problem Set I is due on Sep. 27) |
| 7 | (10/2-10/6)<br>Bias- information bias | Chapter 4 |
| 8 | (10/9-10/13)<br>Midterm Exam | No Lecture |
| 9 | (10/16-10/20)<br>Interaction assessment | Chapter 6<br>(Problem Set II is due on Oct. 17) |
| 10 | (10/23-10/27)<br>Stratification and Adjustment | Chapter 7 |
| 11 | (10/30-11/3)<br>Causal inference | Chapter 10 |
| 12 | (11/6-11/10)<br>Logistic Regression basics | Chapter 7<br>(Problem Set III is due on Nov. 7) |
| 13 | (11/13-11/17) | Chapter 7 |
| 14 | (11/20-11/24)<br>Working on the project or Problem Set IV(Data analysis) | |
| 15 | (11/27-12/1)<br>Epidemiologic Issues in the interface with public health policy | Chapter 10<br>(Problem Set IV is due on Nov. 28)<br>(Project is due on Nov. 28) |
| 16 | Final Exam (12/4-12/8) | |

## Appendix 2: EOHS Faculty Curriculum Vitae

Ritchie D. Taylor, Ph.D., M.S.

Wk. (270)745-8975

E-mail: ritchie.taylor@wku.edu

Education

2002 University of North Texas Denton, TX

Ph.D., Environmental Science

Dissertation – Water quality aspects of an intermittent stream and backwaters in an urban North Texas watershed: Pecan Creek, Denton County, Texas

1994 Tennessee Technological University Cookeville, TN

M.S., Biology (Environmental Biology Emphasis)

Thesis – A remote satellite-linked automated biomonitoring system for rapid detection of rainbow trout (*Oncorhynchus mykiss*) ventilation responses to stream water quality

1989 Belmont University Nashville, TN

B.S., Biology and Chemistry minor

Undergraduate Research – Radionuclide uptake by mallard ducks (*Anas platyrhynchos*) inhabiting a cooling reservoir on the Savannah River Nuclear Site (Aiken, SC) and implications for human consumption.

Professional Experience

2003 – Present Western Kentucky University Bowling Green, KY

*Associate Professor of Environmental and Occupational Health Science – WKU Department of Public Health – Attained Rank August 16, 2009*

*Director – Center for Environmental and Workplace Health – August 15, 2017 – Current*

*Director – Environmental and Occupational Health Science Programs – M.S. in Environmental and Occupational Health and B.S. in Environmental Health Science - July 1, 2015 - Current*

*Assistant Professor of Environmental Health Science – July 1, 2003*

*Director - Environmental Health Science Program – 2004-2012, 2014-June 30, 2015*

*Director – Impact Belize: International Service Learning Program – 2006-2011*

*Member of WKU Graduate Faculty*

*Current Research and Professional Service*

*Principal Investigator – Hazardous Material Commodity Flow Studies in Kentucky*

*Principal Investigator – Watershed Health Assessments and Education for Stormwater Compliance – City of Goodlettsville, TN*

*Principal Investigator – Watershed Health Assessment for Stormwater Compliance – City of Portland, TN*

Principal Investigator – Assessment of Diesel Particulate Matter Exposures of Firefighters in Fire Stations – City of Bowling Green, KY

*Principal Investigator – HMISFER, Development of the Hazardous Materials Information System for Emergency Response*

Co-Investigator – Centers for Disease Control and Prevention (CDC), The National Institute for Occupational Safety and Health (NIOSH), Training Program Grant

*Co-Investigator – Assessment of Volunteer and Career Firefighters Exposures to Occupational Hazards in Northwestern Kentucky*

*Co-Investigator – Assessment of Firefighter Exposures to Fire Smoke Residuals on Turnout Gear, Service Vehicles, and Personal Vehicles*

*Current and Recent University Service*

*Director, Environmental and Occupational Health Science Programs, Department of Public Health, 2015-Current (B.S. in EHS and M.S. in EOHS)*

*FY 2018 Curriculum revision – M.S. in EOHS*

*FY 2018 Development of Internship and Research Portfolio System on Blackboard*

*Director, Center for Environmental and Workplace Health, First CHHS Research Center, 2017-Current*

*Ribbon Cutting and Opening, November 29, 2017*

*FY 2018 – Developed and submitted competitive proposal for the center*

*FY 2018 – 12 proposals submitted by CEWH faculty; Nine funded*

*FY 2018 Development of Strategic Plan for CEWH*

*Served as Acting Department Head, Department of Public Health, June-July 2018*

*Developed FY 2019 Staffing Plan for Department of Public Health*

*Served on the CHHS Administrative Council*

*WKU Research and Creative Activities Program (RCAP), Grants Reviewer, appointed*

*CHHS Dean's Strategic Planning Committee, appointed, 2016-2018*

*CHHS Strategic Planning Research Subcommittee, 2017-2018*

*Dept. of Public Health committees: Chair and Member - Environmental and Occupational Health Science; Member - Public Health; Member – Junior Faculty Mentorship Committee*

*EOHS Search Committee Chair*

*FY 2018 – Search successful – Hired Dr. Edrisa Sanyang*

*FY 2016 – Search successful – Hired Dr. Jooyeon Hwang*

*MPH Search Committee Member, FY19*

*Member of WKU Graduate Faculty*

Academic Programs Developed

*Environmental Health Science, B.S. - Western Kentucky University, Department of Public Health, College of Health and Human Services – 2004, Revised in 2017*

*Undergraduate Certificate in Occupational Safety and Health - Western Kentucky University, Department of Public Health, College of Health and Human Services – 2008*

*Graduate Certificate in Environmental Health and Safety - Western Kentucky University, Department of Public Health, College of Health and Human Services – 2009, Revised in 2017*

*Environmental and Occupational Health Science, M.S. - Western Kentucky University, Department of Public Health, College of Health and Human Services – Approved by Kentucky Council on Postsecondary Education, November 2014, Revised in 2017*

Recent Teaching

*Fall 2018*

EOHS 580 Solid and Hazardous Wastes – 3.0 hours

EOHS 510 Watershed Management and Science – 3.0 hours

ENV 280 Introduction to Environmental Science – 3.0 hours

*Spring 2017*

EOHS 546 Graduate Internship – 3.0 hours

EOHS 580 Solid and Hazardous Wastes – 3.0 hours

PH 530 Independent Investigation in Community Health – 3.0 hours

EOHS 577 Environmental Toxicology – 3.0 hours

*Fall 2017*

EOHS 510 Watershed Management and Science – 3.0 hours

EOHS 560 Environmental Management and Risk Assessment – 3.0 hours

PH 546 Graduate Internship – 3.0 hours

PH 599 Thesis Research and Writing – 3.0 hours

Spring 2018

EOHS 577 Environmental Toxicology – 3.0 hours

EOHS 580 Solid and Hazardous Wastes – 3.0 hours

PH 456 Independent Study in Health and Safety – 3.0 hours

PH 546 Graduate Internship – 3.0 hours

PH 599 Thesis Research and Writing – 3.0 hours

Fall 2018

ENV 280 Introduction to Environmental Science – 3.0 hours

EOHS 510 Watershed Management and Science – 3.0 hours

EOHS 580 Solid and Hazardous Wastes – 3.0 hours

EOHS 546 Graduate Internship – 3.0 hours

PH 530 Independent Investigation in Community Health – 3.0 hours

Spring 2018

PH 385 Environmental Health – 3.0 hours

EOHS 577 Environmental Toxicology – 3.0 hours

PH 546 Graduate Internship – 3.0 hours

PH 530 Independent Investigation in Community Health – 3.0 hours

PH 599 Thesis Research

2000 – 2003 Western Kentucky University Bowling Green, KY

Director – Center for Water Resource Studies, Ogden College of Science and Engineering

*WKU Technical Assistance Center for Small Water Systems*

*Ogden Environmental Water Quality Laboratory*

*Kentucky Center for Wastewater Research*

*Adjunct Faculty – WKU, Department of Geography and Geology, Geosciences Program*

Adjunct Faculty – WKU, Department of Public Health, Environmental Health and Safety Program

1997 – 2000 University of North Texas Denton, TX

*Environmental Research Assistant – Institute of Applied Sciences (1997 – 2000) – City of Denton, TX – Investigating and modeling water quality impacts of the Pecan Creek Water Reclamation Plant*

GIS Instructor (Teaching Assistant) – Advanced Geographic Information Systems (1999 - 2000)

Field Instructor – Aquatic Bioassessment Techniques in Teaching Environmental Sciences (Summer 1999)

1997 – 2000 Ecologic Denton, TX

*Environmental Consulting in the fields of water resources, water utilities management, solid waste management, biological assessments, wetland delineations, GIS, and environmental planning and compliance.*

1992 – 1997 AquAeTer, Inc. Brentwood, TN

*Water Resources Project Manager and Environmental Scientist (1992-1997)*

*Water quality studies*

*Environmental compliance and permitting, NPDES compliance and permitting*

*Aquatic bioassessments and toxicological studies*

*Water quality wasteload allocation studies and modeling*

*Project Management, Marketing, and Client Relations*

*Proposal development and report writing*

*Environmental scientist for hazardous waste management, environmental site assessment, and environmental permitting projects*

1991 – 1992 The ADVENT Group, Inc. Brentwood, TN

*Environmental Scientist - Water Resources Projects (1991 – 1992)*

*Aquatic Toxicology Laboratory Director (1992)*

Additional Professional Experience

Environmental Consulting – City of Denton, TX (1998 – 2000)

Environmental Consulting – Dickson & Associates (1997)

ERM Southeast – Environmental Scientist (1990 – 1991)

Tennessee Tech University – Environmental Research Assistant (1991)

Tennessee Tech University – Teaching Assistant - Ecology (1989 – 1991)

University of Georgia - Savannah River Ecology Lab, Savannah River Nuclear Site, Department of Energy – Ecological Research Intern, Ecosystem Transport of Radioisotopes (1988)

Research Grants, Contracts, and Proposals

$1,820,968 Awarded during tenure at WKU (Dec. 1, 2000 - Current) – WKU Office of Sponsored Programs Records – External Grants and Contracts

Co-Principal Investigator. Centers for Disease Control and Prevention (CDC). The National Institute for Occupational Safety and Health. 2019-2021. NIOSH Training Program Grant.

Vijay Golla – PI, Ritchie Taylor – Co-PI, Edrisa Sanyang – Co-I, and Jacqueline Basham – Co-I

Proposal Submitted for funding October - $600,000 over three years

Principal Investigator. City of Goodlettsville, TN. 2018. Watershed Health Education for Stormwater Management. Fee for Service Contract.

Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Gretchen Macy – Co-I.

$9,954

Principal Investigator. City of Goodlettsville, TN. 2018. Stream Corridor Assessment. Fee for Service Contract.

Ritchie Taylor – PI and Jacqueline Basham – Co-PI.

$9,950

Principal Investigator. Pike County, Kentucky, Emergency Management. 2018. Funding by United States Department of Transportation through Kentucky Emergency Management. Hazardous Materials Commodity Flow Study.

Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Vijay Golla – Co-I.

$34,500

Principal Investigator. City of Bowling Green, KY. 2018. Assessment of Diesel Particulate Matter Exposures in Fire Stations.

Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Vijay Golla – Co-I.

$2,574

Principal Investigator. City of Goodlettsville, TN. 2018. Turbidity Water Quality Study to Assess Runoff from Construction Sites. Fee for Service Contract.

Ritchie Taylor – PI and Jacqueline Basham – Co-PI.

$3,819

Principal Investigator. Louisville Paving and Construction (LP&C), Louisville, KY. 2018. Crystalline Silica Exposure Assessment. Fee for Service Contract

Ritchie Taylor – PI, Jacqueline Basham – Co-PI, and Vijay Golla – Co-I.

Proposal Submitted for Funding – Project will initiate with Grant Funding through NIOSH Education and Research Center as agreed – LP&C will provide $15K match

Co-Principal Investigator. Centers for Disease Control and Prevention (CDC). The National Institute for Occupational Safety and Health. 2017-2022. NIOSH Training Program Grant.

Vijay Golla – PI, Ritchie Taylor – Co-PI, Jooyeon Hwang – Co-I, and Jacqueline Basham – Co-I

$250,000

Principal Investigator. Oscarware, Inc., Bonnieville, KY. 2017-2018. Environmental Permitting, Compliance, and Sustainability Assessment.

Ritchie Taylor – PI and Jacqueline Basham – Co-PI

Professional Service Collaboration

Principal Investigator. Green River Watershed Watch and Kentucky Watershed Watch. 2017-Current. Analysis of Water Quality Data as Chair of Green River Watershed Watch Science Advisory Board.

Ritchie Taylor – PI and Jacqueline Basham – Co-PI

Professional Service Collaboration

Principal Investigator. Center for Environmental and Workplace Health, Internal funding through Western Kentucky University, College of Health and Human Services. 2017-Current.

Ritchie Taylor – PI, Cecilia Watkins – Co-PI, Jooyeon Hwang – Co-PI, Gretchen Macy – Co-PI, and Jacqueline Basham – Co-PI.

$269,510 (Internal Approved budget for FY 2018-2019)

Principal Investigator. Oldham County, Kentucky, Emergency Management. 2017. Funding by United States Department of Transportation through Kentucky Emergency Management. Hazardous Materials Commodity Flow Study.

Ritchie Taylor – PI, Vijay Golla – Co-PI, and Jacqueline Basham – Co-I.

$35,000

Principal Investigator. City of Goodlettsville, TN. 2017. Watershed Health Education for Stormwater Management. Fee for Service Agreement.

Ritchie Taylor – PI and Jacqueline Basham – Co-I.

$9,995

Principal Investigator. City of Portland, TN. 2016-2017. Watershed Health Assessment in the City of Portland, TN MS4 Jurisdiction. Fee for Service Agreement.

Ritchie Taylor – PI.

$9,994

Co-Principal Investigator. Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH). 2014-2016. NIOSH Undergraduate Training Grant.

Vijay Golla – PI and Ritchie Taylor Co-PI.

$150,000

Co-Principal Investigator, Evaluation of accumulated contaminants in firefighter vehicles. 2016. Internal Funding through WKU RCAP Grant. Research and Development Fund.

Jooyeon Hwang – PI, Ritchie Taylor – Co-PI, Vijay Golla – Co-PI, and Mac Cann – Co-I.

$16,000

Principal Investigator, Development of the Hazardous Materials Information System for Emergency Response (HMISFER). 2016. Internal Funding through WKU RCAP Grant. Research and Development Fund.

Ritchie Taylor – PI, Vijay Golla – Co-PI, Stacey Wilson – Co-I, Ron Rizzo – Co-I

$15,936

Co-Principal Investigator. Federal Emergency Management Agency. 2016. Evaluation of Firefighters Exposures to Fire Smoke Contaminants.

Jooyeon Hwang – PI, Ritchie Taylor – Co-PI, Vijay Golla – Co-I, and Mac Cann – Co-I

Proposal Submitted and Reviewed, not funded

Co-Principal Investigator. Kentucky Biomedical Research and Infrastructure Network. 2016. Exposure Assessment of Volunteer Firefighters to Fire Smoke and Residual Contaminants.

Jooyeon Hwang – PI, Vijay Golla – Co-PI, and Ritchie Taylor – Co-PI

Proposal Submitted and Reviewed, not funded

Principal Investigator. City of Goodlettsville, TN. 2016. Bacteriological and Water Quality Assessment of the Mansker Creek Watershed. Fee for Service Agreement.

Ritchie Taylor - PI

$9500

Principal Investigator. City of Goodlettsville, TN. 2016. Bioassessment of the Mansker Creek Watershed. Fee for Service Agreement.

Ritchie Taylor - PI

$9,500

Principal Investigator. City of Goodlettsville, TN. 2015. Watershed Health Assessment of the Mansker Creek Watershed. Fee for Service Agreement.

Ritchie Taylor - PI

$9,958

Principal Investigator. Shelby County, Kentucky, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management. 2015. Hazardous Materials Commodity Flow Study.

Ritchie Taylor – PI and Vijay Golla, Co-PI

$38,000

Principal Investigator. City of Gallatin, TN. 2015. Watershed Health Assessment.

Ritchie Taylor - PI

$5,773

Co-Principal Investigator. U.S. Health Resources and Services Administration. 2014. HRSA Public Health Traineeship Grant.

Proposal Submitted and Reviewed. Top 15% Score. Not funded. Proposed Budget $393,740

Gary English – PI, Vijay Golla – Co-PI, and Ritchie Taylor – Co-PI

Principal Investigator. City of Goodlettsville, TN. 2014. Bioassessment of the Mansker Creek Watershed.

Ritchie Taylor - PI

$3,500

Co-Principal Investigator. Madison County, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management. 2014. Hazardous Materials Commodity Flow Study.

PI – Vijay Golla and Co-PI - Ritchie Taylor

$15,000

Principal Investigator. Montgomery County, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management. 2014. Hazardous Materials Commodity Flow Study.

PI – Ritchie Taylor and Co-PI – Vijay Golla

$20,000

Principal Investigator. Rowan County, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management. 2014. Hazardous Materials Commodity Flow Study.

PI – Ritchie Taylor and Co-PI – Vijay Golla

$20,000

Principal Investigator. United States Department of Agriculture. Funding through Center for Produce Safety, University of California, Davis. 2014. Produce Safety and Assessment of Pathogen Surrogates for Public Health Protection.

PI - Ritchie Taylor and Student Co-I – Ethan Givan

$67,000

Co-Principal Investigator. Daviess County and Owensboro, KY, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management. 2013. Hazardous Materials Commodity Flow Study.

PI – Vijay Golla and Co-PI – Ritchie Taylor

$25,000

Principal Investigator. Henderson County, Kentucky, Emergency Management. Funding by United States Department of Transportation through Kentucky Emergency Management. 2013. Hazardous Materials Commodity Flow Study.

PI – Ritchie Taylor and Co-PI – Vijay Golla

$25,000

Principal Investigator. Western Kentucky University, College of Health and Human Services, Faculty Research Grant. 2013-2014. Estrogenic Compounds in the Barren River Watershed and Implications for Human Health Protection.

PI – Ritchie Taylor

$3,000

Principal Investigator. Kentucky Water Resources Research Institute, University of Kentucky. 2012-2013. Occurrence and Distribution of Estrogenic Compounds in the Barren River Watershed and Drinking Water in the City of Bowling Green, KY.

PI – Ritchie Taylor and Student Co-I – Roni Grigsby

$5,500

Co-Principal Investigator. Kentucky Cabinet for Economic Development, Kentucky Commercialization Fund. 2012-Current. Development of the HazWatch System for Hazardous Material Commodity Flow Surveillance, HazWatch LLC.

PI – Gordon Bayliss, Co-PI – Ritchie Taylor, and Co-PI – Vijay Golla

$100,000

Co-Principal Investigator. Louisville/Jefferson County Kentucky Emergency Management and Kentucky. 2012. Hazardous Materials Commodity Flow Study.

PI – Vijay Golla and Co-PI – Ritchie Taylor

$65,0000

Principal Investigator. Madison County Kentucky Emergency Management and Kentucky Emergency Management. 2011. Hazardous Materials Commodity Flow Study.

PI – Ritchie Taylor and Co-PI – Vijay Golla

$40,000

Principal Investigator. Warren County Kentucky, Emergency Management. 2010. Hazardous Material Commodity Flow Study.

PI – Ritchie Taylor and Co-PI – Vijay Golla

Professional Service collaboration.

Principal Investigator. Kingsford Manufacturing Corporation, Clorox Corporation. 2009-2010. Occupational Safety and Health Certificate Program. Summer Shade, Kentucky. Educational Program for Kingsford Employees developed through WKU DELO.

PI – Ritchie Taylor and Co-PI – Vijay Golla

$100,000

Principal Investigator. USEPA. 2005-2007. Kentucky Nonpoint Source Education for Land Use Development. Water Education Program for Kentucky. Grant administered through Kentucky Division of Water.

PI – Ritchie Taylor

$196,000 (including WKU match)

Principal Investigator. ACVPM Exam Prep Course. Developed through WKU DELO support. Distance education project with University of Maryland and ACVPM.

PI – Ritchie Taylor

$3,250

Principal Investigator. Belize International Service Learning Program. 2005. Environmental Health Science, Research, and Service Learning. Belize, Gales Point Village. Joint Project with University of Louisville. Internal Grant.

PI – Ritchie Taylor

$3,000

Co-Principal Investigator. USEPA. 2005. Assessment of Atrazine in Agricultural Watersheds in Kentucky: Understanding Use, Drinking Water Impacts, and Stakeholder Involvement. Co-Principal Investigator.

PI – Chris Groves and Co-PI – Ritchie Taylor

$75,000.

Principal Investigator. Kentucky River Authority. 2005. Comprehensive Source Water Protection Program. Grant with Western Kentucky University.

PI – Ritchie Taylor

$65,000

Principal Investigator. Baylor University. 2004. Reservoir Transition Zone Index Project. Research with Baylor University and Parsons, Inc.

PI – Ritchie Taylor

$9,000

Principal Investigator. Kentucky River Authority. 2004. Comprehensive Source Water Protection Program. Grant with Western Kentucky University.

PI – Ritchie Taylor

$25,000

Principal Investigator. City of Denton, TX. 2002 - 2003. Water Quality Modeling and Assessment of Clear Creek. City of Denton Water and Wastewater Utilities. Contract with Western Kentucky University.

PI – Ritchie Taylor

$9,500

Principal Investigator. USEPA, Drinking Water Branch, Washington, D.C. 2002. Technical Assistance Center for Water Quality. Grant with Western Kentucky University, CWRS.

PI – Ritchie Taylor, Co-PI – Chris Groves, Co-PI – Scott Grubbs, and Co-PI – Ouida Meier

$498,000

Principal Investigator. Investigation of Treatment Methods to Reduce Trihalomethane Formation in BGMU Finished Water. Grant with Western Kentucky University, CWRS.

PI – Ritchie Taylor

$15,000

Principal Investigator. USEPA, Drinking Water Branch, Washington, D.C. 2001. Technical Assistance Center for Water Quality. Grant with Western Kentucky University, CWRS.

PI – Ritchie Taylor, Co-PI – Chris Groves, Co-PI – Scott Grubbs, and Co-PI – Ouida Meier

$498,000

Principal Investigator. Kentucky Department of Agriculture. 2001. Atrazine Sampling of Spa Lake. Grant with Western Kentucky University, CWRS.

PI – Ritchie Taylor

$3,500

Manuscripts

Peer Reviewed – Published and Submitted

Macy, G., R. Taylor, J. Hwang, V. Golla, and C. Cann. 2018. Examining behaviors related to increased exposures among rural firefighters. *Perspectives in Public Health*. (Submitted October 25, 2018 – JRH-2108-10-0311).

Taylor R., G. Macy, J. Hwang, V. Golla, and C. Cann. 2018. Using community collaboration to engage firefighters in rural communities. *Journal of Rural Health*. (Submitted October 17, 2018 – JRH-2108-10-0311).

Hwang, J., R. Taylor, C. Cann, P. Norris, and V. Golla. 2018. Evaluation of accumulated polycyclic aromatic hydrocarbons and asbestiform fibers on firefighter vehicles: Pilot Study. *Fire Technology*. (Submitted September 17, 2018 – FIRE-D-18-00209).

Hwang, J., R. Taylor, W. Gilbert (EOHS Student), C. Cann, and V. Golla. 2018. Assessment of diesel particulates in fire departments using different exposure metrics: Pilot Study. *Fire Safety Journal*. (Submitted September 17, 2018 – FISJ_2018_374).

Cook, K.L, E.C. Givan (WKU MPH Student), H.M. Mayton, R.R. Parekh, R.D. Taylor, and S.L. Walker. 2017. Using the agricultural Environmental to select better surrogates for foodborne pathogens associated with fresh produce. *International Journal of Food Microbiology*. 262(2017): 80-88.

Givan, E. (WKU MPH Student), K. Cook, R.R. Parekh, J. Simmons, K. Sistani, and R. Taylor. Environmental E. coli as surrogates for foodborne pathogen contaminants associated with produce and agricultural soils. *Journal of Environmental Quality*. (*Submitted* July 19, 2017 – ID:JEQ-2017-07-0279-TR).

Hwang, J., R. Taylor, G. Macy, M. Cann, and V. Golla. 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants. *Journal of Occupational and Environmental Hygiene*. (*Submitted* May 3, 2017 – ID: JOEH-17-0132).

Taylor, R., V. Golla, and J. Basham. 2017. A comparison of hazardous materials commodity flow across the urban to rural gradient in five Kentucky counties. *Journal of Environmental Health*. (*Submitted* May 4, 2017 – Paper #: 2017-JEH-067).

Golla, V., J. Nelms, R. Taylor, and S. Mishra. 2011. Pesticide concentrations in drinking water from farm homes: variation between community water supply and well-water. *Journal of Environmental Science and Engineering*. 5(1):453-459.

Brooks, B.W., J.T. Scott, M.G. Forbes, T.W. Valenti, Jr., J.K. Stanley, R.D. Doyle, K.E. Dean, J. Patek, R.M. Palachek, R.D. Taylor, and L. Koenig. 2008. Reservoir zonation and water quality. *Lakeline*. 28(4):39-43.

Brooks, B.W., T.M. Riley, and R.D. Taylor. 2006. Water Quality of effluent-dominated ecosystems: ecotoxicological, hydrological, and management considerations. *Hydrobiologia*. Special Issue, Water Quality: from Assessments and Ecotoxicology to Remediation. 556:365-379.

Taylor, R.D., K..L. Dickson, and V. Golla. 2006. Drought induced dissolved oxygen dynamics of an effluent dominated stream entering a reservoir backwater and implications for environmental compliance. *Environmental Informatics Archives*. Vol. 4 (2006).

Taylor, R.D., E. Collins, J. Burns, and J. Willcox. 2005. Kentucky Pesticide Workgroup: An Integrated Approach to Source Water Protection in Kentucky's Agricultural Basins. *AWWA 2005 Source Water Protection Symposium Proceedings*. Palm Beach Gardens, FL. Edition: 2006 - CD-ROM ISBN 1583214135; Catalog No. 20610.

Corn, M.R., S.T. McCormick, B. Firth, and R.D. Taylor. 1997. Algal Influences on the Assimilative Capacity of the Red River. *Biological Sciences Symposium Proceedings*. Tappi Press. Session number 7-3.

Professional Articles – Peer Reviewed

Lyon, J.B., B. Tanner, and R.D. Taylor. 2004. Utilization of GIS Technology in Rural Water and Wastewater Systems: A Case Study of West McCracken Water District. *Waterproof*. Spring edition. pp. 10-11.

Taylor, R.D. and J. Lyons. 2003. GIS and GPS Applications for Small Water Utilities. *Waterproof.* Summer edition. p 13.

Taylor, R.D. 2001. Partnerships to Assist Water Utilities: WKU and KRWA. *Waterproof*. Fall edition.

Taylor, R.D. 2001. Developing Capacity: The Western Kentucky University Technical Assistance Center for Water Quality. *Waterproof*. Spring 2001. pp. 13-14.

Technical Reports

Golla, V., R.D. Taylor, J. Hwang, and J. Basham. "Annual Report for the NIOSH Training Grant". (2018). Submitted to the National Institute of Occupational Safety and Health. WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Taylor, R.D., J.R. Basham, and V. Golla. "Pike County, KY Hazardous Materials Commodity Flow Study". (2018). WKU Center for Environmental and Workplace Health. Bowling Green, Kentucky.

Taylor, R.D., C.M. Watkins, G.M. Macy, J.R. Basham, C.M. Cann, and J. Hwang. "Center for Environmental and Workplace Health: FY 2018 Annual Report". (2018). WKU Center for Environmental and Workplace Health. Bowling Green, KY.

Taylor, R.D., N. Kruth (student), and R. Hunton (student). "Executive Summary and Final Report for the City of Portland, TN Watershed Health Assessments". (2017). WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Taylor, R.D. "Bioassessment of Streams within the City of Goodlettsville, TN". (2017). *Watershed Health Assessments*. WKU Environmental and Occupational Health Science. Bowling Green, Kentucky.

Golla, V., R.D. Taylor, J. Hwang, and J. Basham. "Annual Report for the NIOSH Training Grant". (2017). Submitted to the National Institute of Occupational Safety and Health. WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Golla, V., R.D. Taylor, J. Hwang, and J. Basham. "Annual Report for the NIOSH Training Grant". (2016). Submitted to the National Institute of Occupational Safety and Health. WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Taylor, R.D., M. Shirley (student), and R. Lauth (student). "Watershed Health Assessment of the Manskers Creek Watershed, Goodlettsville, TN". (2016). WKU, Department of Public Health, Environmental Health and Occupational Health Science. Bowling Green, KY.

Taylor, R.D., V. Golla, and J. Basham. "Shelby County, Kentucky hazardous materials commodity flow study". (2015). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Henderson County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky.

Taylor, R.D. "Bioassessment of streams within the City of Goodlettsville, TN". (2015). *Watershed Health Assessments*. WKU Environmental and Occupational Health Science. Bowling Green, Kentucky.

Taylor, R. D., Golla, V., Brown, J., Makinen, B., Richards, C., and Bryant, M., "Madison County, Kentucky hazardous materials commodity flow analysis". (2014). *Public Health Faculty Publications.* Paper 7. http://digitalcommons.wku.edu/public_hlth_fac_pub/7

Golla, V., Taylor, R. D., and Brown, J, "Montgomery County, Kentucky hazardous materials commodity flow analysis 1". (2014). *Public Health Faculty Publications.* Paper 6. http://digitalcommons.wku.edu/public_hlth_fac_pub/6

Golla, V., Taylor, R. D.; and Brown, J., "Rowan County, Kentucky hazardous materials commodity flow analysis". (2014). *Public Health Faculty Publications.* Paper 5. http://digitalcommons.wku.edu/public_hlth_fac_pub/5

Golla, V., R.D. Taylor, J. Eagleson, E. Givan, and R. Payne. "Daviess County, Kentucky hazardous materials commodity flow study." (2013). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Daviess County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/11

Taylor, V. Golla, J. Eagleson, E. Givan, and L. Koerber. "Henderson County, Kentucky hazardous materials commodity flow study. *Kentucky Emergency Management HAZMAT Commodity Flow Studies"*. (2013). WKU, Henderson County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/10

V. Golla, R.D. Taylor, J. Suhl, J. Eagleson, Roni Grigsby and P. Chaven. "Louisville/Jefferson County, Kentucky hazardous materials commodity flow study". (2012). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Madison County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/9

Taylor, R.D., V. Golla, S. Advani, P. Gole, P. Chaven, C. , J.R. Brown and E.R. Barringer. "Madison County, Kentucky hazardous materials commodity flow study". (2011). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Madison County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/8

Taylor, R.D., V. Golla, S. Advani, R. Nair, P. Gole, J.R. Brown and E.R. Barringer. "Hazardous materials commodity flow study of I-65 and the Natcher Parkway in Warren County, Kentucky". (2010). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Warren County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/4

Taylor, R.D., B. Strenecky, J. Norris, M. Calico, D. Carter, E. Main, D.G. Wright, B. Petty, and M. Kerby. "Impact Belize: international health service learning program, 2010". (2010). Western Kentucky University. College of Health and Human Services.

Taylor, R.D, B. Strenecky, J. Norris, M. Calico, D. Carter, B. Petty, M. Hill, and S. Ranapurwala. "Belize international health and human service learning program, 2009". (2009). Western Kentucky University, College of Health and Human Services.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for Kentucky". (2007). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D. and M. Hunt. "Final report: Kentucky nonpoint source education program for land use development". (2007). Western Kentucky University, Department of Public health. Report for Kentucky Division of Water, Kentucky Public Health and Environmental Health Protection Cabinet. Final report for grant funded 319 U.S. EPA project.

Taylor, R.D., J. Burns, J. Nelms., and J. Brown. Source water protection program in the North Fork of the Kentucky River Basin. "2006". Western Kentucky University, Department of Public Health and Kentucky Rural Water Association. Report for Kentucky River Authority.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for Kentucky". (2006). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for kentucky". (2005). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D., J. Burns, G. Larimore, and A. Lange. 2004. Assessment report of Kentucky River Authority assistance survey. Western Kentucky University, Department of Public Health and Kentucky Rural Water Association. Report for Kentucky River Authority.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for Kentucky". (2004). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D, K. Banks, and P.S. Aurora. "Water quality assessment and wasteload allocation for the proposed Clear Creek Water Reclamation Plant, City of Denton, Denton County, Texas". (2003). Western Kentucky University, Center for Water Resource Studies and City of Denton Water Resources Program. Report for NPDES permitting to TCEQ. WKUCWRS2003-001.

Taylor, R.D., J. Burns, J. Willcox, and T. Lyons. 2003. "Source water assessment for the McCreary County Water District". (2003). Western Kentucky University, Center for Water Resource Studies and Kentucky Rural Water Association.

O. Meier, C. Groves, Taylor, R.D., S. Wallace, A. Lange, P. East, J. Jack, and S. Grubbs. "Western Kentucky University Technical Assistance Center for Water Quality: quarterly reports". (2003). Western Kentucky University, Center for Water Resource Studies. Bowling Green, KY (for EPA Drinking Water Branch, Small Systems).

O. Meier, C. Groves, Taylor, R.D., S. Wallace, A. Lange, P. East, J. Jack, and S. Grubbs. "Western Kentucky University Technical Assistance Center for Water Quality: annual report". (2002). Western Kentucky University, Center for Water Resource Studies. Bowling Green, KY (for EPA Drinking Water Branch, Small Systems).

Taylor, R.D. and K.L. Dickson. Water quality modeling and characterization of Pecan Creek, Denton County Texas. (2001). University of North Texas, Institute of Applied Sciences. Denton, TX (for Trinity River Authority and Texas Natural Resource Conservation Commission).

Digital Media

Taylor, R.D. 2004. Partnerships for Source Water Protection. *Pesticide and Nutrient BMP's from the Classroom to the Field*. (2004). Kentucky Department of Agriculture. Environmental Education CD.

Taylor, R.D. 2003. Agricultural Partnerships for Source Water Protection. *AWWA Source Water Protection Symposium Workshop*. (2003). CD Volume I, Materials for the Design of Best Management Practices for the Source Water Protection Workshop. U.S. EPA, Office of Ground Water and Drinking Water, Drinking Water Protection Division.

Scholarly Presentations

Selected Peer-reviewed Abstracts, Conference and Symposia Presentations

Gadde, D. (Student), V. Golla, R.D. Taylor, and X. Ding. November 2018. Assessment of ergonomics in Indian dental practice. APHA 2018, Annual Meeting and Expo. American Public Health Association. San Diego, CA.

Hwang, J., R. Taylor, W. Gilbert (student), and V. Golla. October 2018. Assessment of diesel particulates using different exposure metrics: pilot study. PRP Symposium, University of Cincinnati, NIOSH Education and Research Center. Cincinnati, OH.

Hwang, J., R. Taylor, C.M. Cann, P. Norris, and V. Golla. May 2018. Exposure to residual polycyclic aromatic hydrocarbons in firefighter vehicles: Pilot Study. American Industrial Hygiene Association, Annual Conference, AIHCE EXP 2018. Philadelphia, PA.

Taylor, R.D. and J.R. Basham. February 2018. Hazardous Materials Commodity Transport in Kentucky and a Tool for Emergency Management. Kentucky Environmental Health Association, Annual Conference 2018. Bowling Green, KY. (Invited Speaker)

Hwang, J., R. Taylor, V. Golla, and C.M. Cann. October 2017. Assessment of diesel particulates in fire departments using different exposure metrics. NIOSH PRP Symposium. University of Cincinnati.

Hwang, J., R. Taylor, M. Cann, G. Macy, and V. Golla. April 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants. Council of State and Territorial Epidemiologists. 6th Annual Southeastern States Occupational Network (SouthON) Meeting. Nashville, TN.

Stanam, A., V. Golla, S. Vasa, and R.D. Taylor. November 2017. Exposure to computer work and prevalence of musculoskeletal symtoms among university employees: a cross-sectional study. APHA 2018, Annual Meeting and Expo. American Public Health Association. Atlanta, GA.

Basham, J.R., R. Taylor, and V. Golla. May 2016. A comparison of hazardous materials in five Kentucky counties: urban vs. rural gradient. American Industrial Hygiene Association Annual Conference and Exhibition. Baltimore, Maryland.

Shirley, M. (student), R. Lauth (student), and R. Taylor. April 2016. Watershed Health Assessment for a Small MS4 in the Mansker Creek Watershed. Western Kentucky University Student Research Conference. Bowling Green, KY.

Taylor, R., M. Shirley (student), and R. Lauth. April 2016. Watershed health as a model for human health protection and water quality. Kentucky Public Health Association Annual Conference. Owensboro, KY.

Cook, K., R. Taylor, and E. Givan (student). June 2015. Selection of *E. coli* surrogates with attachment and survival patterns similar to pathogens associated with produce. *CPS Produce Research Safety Annual Symposium*. Atlanta, GA.

Givan, E. (student), R. Taylor, and K. Cook. April 2014. Selection of *E. coli* surrogates for Produce Safety. *Kentucky Public Health Association, Annual Conference*. Owensboro, KY.

Grigsby, R. (student) and R. Taylor. March 2013. Occurrence of Synthetic Estrogen in Surface Water, Sourcewater and Drinking Water in the Barren River Watershed. *Kentucky Water Resources Research Symposium.* Lexington, KY.

Taylor, R.D., J.R. Brown (student), A. Murray and K. Smith. November 2012. An innovative approach to service learning and watershed management. *American Water Resources Annual Conference.* American Water Resources Association. Jacksonville, FL.

Ibekwe, O. (student), R.D. Taylor and W. Makanta. November 2012. Assessment of the drinking water quality from on-campus water fountains. *APHA 140th Annual Meeting and Expo.* American Public Health Association. San Francisco, CA.

Chavan, P. (student), V. Golla, R.D. Taylor and C. Ellis (student). April 2012. Hazardous material commodity flow analysis in Madison County, Kentucky. *KPHA Annual Meeting.* Kentucky Public Health Association. Louisville, KY.

Brown, J.R. (student), R.D. Taylor, E.R. Barringer (student). April 2012. Water quality measurements as a tool to assess stormwater Impacts. *KPHA Annual Meeting.* Kentucky Public Health Association. Louisville, KY.

Taylor, R.D., V. Golla, and S. Advani (student). 2011. November 2012. Hazardous materials commodity flow analysis: Warren County, Kentucky. *APHA 139th Annual Meeting and Expo.* American Public Health Association. Washington, D.C.

Advani, S. (student), R.D. Taylor and V. Golla. April 2011. Commodity flow of hazardous materials in Warren County, Kentucky. *KPHA Annual Meeting.* Kentucky Public Health Association. Louisville, KY.

Taylor, R.D., B. Strenecky, D. Carter, B. Petty, D.G. Wright, M.E. Main, M.B. Kerby, J. Norris (student), M, Calico (student), and R. Nair (student). November 2010. *APHA 138th Annual Meeting and Expo.* American Public Health Association. Denver, CO.

Kerby, M.B., D.G. Wright, M.E. Main, R.D. Taylor and D.M. Carter. June 2010. IMPACT Belize 2010. *8th Annual American Democracy Project National Meeting.* American Democracy Project and the American Association of State Colleges and Universities. Providence, RI.

Taylor, R.D., S. Ranapurwala (student), and M. Hill (student). November 2009. Protection of Public Health and Capacity Development for a Rural Water System in Gales Point, Belize – An Environmental Health Service Learning Project. American Public Health Association. APHA 137th Annual Meeting and Expo. Philadelphia, PA.

Mishra, S. (student), V. Golla, R. Taylor, and J. Nelms (student). November 2008. Atrazine in Drinking Water: Exposure Assessment and Analysis. American Public Health Association. APHA 136th Annual Meeting and Expo. San Diego, CA.

Taylor, R.D., V. Golla, J. Willcox, J. Nelms (student), and S. Melky (student). November 2007. An Integrated Approach to Source Water Protection and Awareness in Rural Agricultural Watersheds. American Public Health Association. *APHA 135th Annual Meeting and Exposition*. Washington, D.C.

Kinkead, G. (student), R. Grigsby (student), B. Vickous (student), and R.D. Taylor. November 2007. A Hazardous Chemical Release Analysis and GIS for Environmental Protection and Emergency Management in Bowling Green and Warren County, Kentucky. *Southeast Regional Environmental Science and Health Symposium.* Centers for Disease Control, Atlanta, GA.

Nelms, J. (student), Taylor, R.D., and V. Golla. November 2007. Sourcewater protection in rural agricultural watersheds in Kentucky and implications of atrazine monitoring. American Water Resources Association. AWRA Annual Water Resources Conference. Albuquerque, NM.

Taylor, R.D., K..L. Dickson, and V. Golla. May 2006. Drought induced dissolved oxygen dynamics of an effluent dominated stream entering a reservoir backwater and implications for

environmental compliance. *5th International Conference on Environmental Informatics*. Vol. 4 (2006). Presentation of paper # 94. http://www.iseis.org/Events/ISEIS2006/confPapers.htm#wwt

Taylor, R.D., E. Collins, and J. Burns. January 2005. Kentucky Pesticide Workgroup: An Integrated Approach to Source Water Protection in Kentucky's Agricultural Basins. *AWWA 2005 Source Water Protection Symposium.* Session T6 – Effective Partnerships for Protecting Source Water Part II. Palm Beach Gardens, FL.

Taylor, R.D. and J. Willcox (student). November 2004. Partnerships for Source Water Protection in Agricultural Watersheds within Kentucky. *Public Health and the Environment*. APHA 132nd Annual Meeting and Exposition. Washington, D.C.

Selected Invited Presentations

Taylor, R.D., J. Hwang, and G. Macy. 2018. Review of recent firefighter health studies conducted by Western Kentucky University. Kentucky Fire Commission, Defend Yourself from Carcinogens, Learn What You Can Do. State Fire Training Center, # 6. Louisville, KY.

Basham, J.R. and R.D. Taylor. 2018. Green River Watershed Water Quality Data Review - 2018. Green River Watershed Watch Annual Conference. Bowling Green, KY.

Basham, J.R. and R.D. Taylor. 2018. Oldham County, KY Hazmat Commodity Flow Study. Oldham County Local Emergency Planning Commission, January Meeting. Oldham County Emergency Management. LaGrange, KY.

Taylor, R.D., J. Hwang, G.M. Macy, J.R. Basham, and C.M. Watkins. 2018. Firefighter Health Research: WKU Center for Environmental and Workplace Health. Plenary Address at the Bryant Stiles Officers School, Kentucky Fire Commission Assembly. Owensboro Convention Center, Owensboro, KY.

Taylor, R.D., W. Mkanta, J. Hwang, D. Babb, K.J. Crandall, and L. Winchester. 2018. How to Prepare A Successful RCAP Application. CHHS Research Methods Workshop. WKU College of Health and Human Services. Bowling Green, KY.

Taylor, R.D. and J.R. Basham. 2018. Citizen Science: Assessing Watershed Health. Green River Watershed Watch Annual Conference. Bowling Green, KY.

Basham, J.R. and R.D. Taylor. 2017. Hazardous Materials Commodity Flow Studies in Kentucky and Future Directions. Kentucky Emergency Response Commission, Kentucky Emergency Management. Versailles, KY.

Hwang, J. and R.D. Taylor. 2017. Firefighters, Occupational Exposures and Lessons Learned in Northwester Kentucky. CHHS Works in Progress Workshop. WKU College of Health and Human Services. Bowling Green, KY.

Taylor, R.D. and J. Basham. 2016. Comparison of Hazardous Materials Commodity Flow Studies in Five Kentucky Counties: Urban vs Rural Gradient. Kentucky Governor's Emergency Management Workshop, Kentucky Emergency Management. Louisville, KY.

Taylor, R.D. and J. Basham. 2016. Hazardous Materials Commodity Flow Studies, Future Needs, and New Directions. Kentucky Governor's Emergency Management Workshop, Kentucky Emergency Management. Louisville, KY.

Taylor, R.D. and J. Basham. 2016. Hazardous Materials Commodity Flow Study. Kentucky Governor's Emergency Management Workshop, Kentucky Emergency Management. Louisville, KY.

Taylor, R.D. and J. Basham. 2016. Rural to Urban Gradient Hazmat Commodity Flow Study in Western Kentucky. Kentucky Emergency Management Workgroup. Frankfort, KY.

Taylor, R.D. and M. Shirley. 2016. Watershed Health Assessment in the Mansker Creek Watershed. Middle Tennessee Stormwater Association. Quarterly Meeting. White House, TN.

Groves, C. and R.D. Taylor. 2015. Karst and Human Health Considerations. Tennessee Stormwater Association Workshop: Stormwater and Karst Geology. Lebanon, TN.

Taylor, R.D., V. Golla, and J. Eagleson. 2013. Henderson County, Kentucky Hazardous Materials Commodity Flow. Henderson County Emergency Management and Local Emergency Planning Committee, Quarterly Meeting. Henderson, KY.

Taylor, R.D., V. Golla, and J. Eagleson. 2013. Daviess County, Kentucky Hazardous Materials Commodity Flow. Daviess County Emergency Management and Local Emergency Planning Committee, Quarterly Meeting. Owensboro, KY.

Taylor, R.D. and V. Golla. 2013. Conducting a Hazardous Materials Commodity Flow Study in Your Community. Kentucky Emergency Management, Commonwealth Emergency Response Commission, Quarterly Meeting. Frankfort, KY.

Taylor, R.D. and V. Golla. 2012. Louisville/Jefferson County Hazardous Materials Commodity Flow Study. Louisville/Jefferson County Local Emergency Planning Committee, Quarterly Meeting. Louisville, KY.

Taylor, R.D. 2009. Belize International Health Service Learning. National Meeting for the $100 Solution. Western Kentucky University, Alive Center.

Taylor, R.D. 2008. International Environmental Service Learning: The Belize Experience. International Service Learning Symposium, Murray State University.

Taylor, R.D. 2007. Communicating with students through online course content. WKU Online Teacher's Summer Workshop. Western Kentucky University. Online Teaching Panel Discussion.

Golla, V., R.D. Taylor, and J. Nelms. 2007. Farm Families' Potential Exposures to Pesticides through Drinking Water. Kentucky Pesticide Workgroup, Spring Meeting. Frankfort, KY.

Taylor, R.D. 2006. Reducing the Risks of Waterborne Illnesses and Improving Public Health in Gales Point, Belize. Rotary International Water Summit. Louisville, KY.

Taylor, R.D. January – April 2005 – April 2006. Kentucky Pesticide Workgroup: Assisting Farmers and Rural Communities in the Protection of Drinking Water Supplies. In Cooperation

with Kentucky Department of Agriculture. Five Regional Best Management Practices Workshops in Kentucky.

Taylor, R.D. January 2005. Implementing Source Water Protection Programs in Rural Agricultural Communities. *AWWA 2005 Source Water Protection Symposium*. Best Management Practices Workshop. Palm Beach Gardens, FL.

Taylor, R.D. 2004. Partnerships for Source Water Protection: Kentucky Case Studies. *AWWA Sources of Water Conference*. BMPs for Source Water Protection Workshop. Austin, Texas.

Taylor, R.D. 2003. Developing Partnerships for Source Water Protection in Agricultural Basins. *USEPA National Source Water Protection Conference*. Leveraging Rural Partnerships, Session C4. Washington, D.C. http://www.epa.gov/safewater/protect/conference/presentations.html#c4

Brooks, B., T. Riley, and R.D. Taylor. 2003. Water Quality of Effluent Dominated Ecosystems: Ecotoxicological, Hydrological, and Management Considerations. *North American Benthological Society, 5th International Poster Session Conference, Aquatic Ecosystems and Organisms*. Invited distant participants. Moscow, Russia.

Taylor, R.D., P. East, and A. Lange. October 2002. The Utility Management Institute: Providing Opportunities for Capacity Development of Small Water Systems. Association of State Drinking Water Administrators, Annual Conference. Invited speaker. Salt Lake City, Utah.

Taylor, R.D. April 2002. Assisting Small Systems in Capacity Development: the Technical Assistance Center for Water Quality at Western Kentucky University. EPA Region 4, State Water Administrators Workshop. Atlanta, GA.

Taylor, R.D. April 2002. The Utility Management Institute and On-line Courses for Water Utility Managers. EPA Region 4 and 6, Capacity Development Workshop. Dallas, TX.

Taylor, R.D. April 2002. The Utility Management Institute and On-line Courses for Water Utility Managers. EPA Region 4 and 6, Capacity Development Workshop. Dallas, TX.

Taylor, R.D. January 2002. Storm Water Management in Warren County, Kentucky. Warren County Planning and Zoning Commission, Training Session. Warren County KY Planning and Zoning.

Professional Awards, Honors, and Service

Research Award, Prolific Research Grant Proposal Development, FY 2018. Awarded by Western Kentucky University, Office of Sponsored Programs.

Appointed Member of University of Cincinnati, NIOSH Education and Research Center, Pilot Research Grant Committee, October 1, 2018 - Current

Appointed Member of Supporting Heroes, Nonprofit Organization, Cancer Review Committee, August 1, 2018-Current

Appointed Science Advisory Board Chair, Green River Watershed Watch, Member of Science Advisory Board, Kentucky Watershed Watch, August 1, 2017-Current

Research Award, Prolific Research Grant Proposal Development, FY 2017. Awarded by Western Kentucky University, Office of Sponsored Programs.

Research Award, Prolific Research Grant Proposal Development, FY 2016. Awarded by Western Kentucky University, Office of Sponsored Programs. December 7, 2016.

Outstanding Faculty Award for Public Service, Western Kentucky University, College of Health and Human Services. 2014. This award is given to a faculty member in the College of Health and Human Services for distinguished activity in Public Service. Categories of public service, which are encompassed, include technical assistance services; consultation activities; service to public and professional organizations; special services to individual clients; and application of knowledge to the resolution of public problems.

Bill Patton Environmental Service Award. 2013. Awarded by Kentucky Public Health Association. In honor of demonstrated exceptional performance, outstanding achievements and meritorious service in Environmental Services. Awarded for meritorious service and applied research in Kentucky communities focused on emergency preparedness and response to hazardous materials transport. April 18, 2013. Presented at the Kentucky Public Health Association Annual Conference, Louisville, KY.

Most Prolific Proposer, WKU, College of Health and Human Services. 2012. Awarded by Western Kentucky University, Office of Sponsored Programs. November 26, 2012.

Award for Grant Funding at Western Kentucky University, 1.0 M Level, WKU Office of Sponsored Programs - 2001

Social Contract with village of Gales Point, Belize. 2008.

Moderator – AWWA 2005 Source Water Protection Symposium – Session T7 – Land Use Issues on the Protection of Source Water

Board of Directors, Kentucky Health and Safety Network – 2005-2007

Member of the Kentucky Pesticide Workgroup – 2002-2008

Member of the Watershed Trainers Group, Kentucky Division of Water – 2006 – 2010

Scientific Advisor, Rough River Source Water Protection Council – 2003 – 2004

Scientific Advisor, Lake Linville Watershed Protection Advisory Group – 2005 - 2006

Member of the KY Dept. of Agriculture's Pesticide and Nutrient BMP's Training Group –2005-2008

Technical Advisor, City of Goodlettsville, Stormwater Management Program, 2006-Current

Chair, Science Advisory Board, Green River Watershed Watch, 2017-Current

Member, Science Advisory Board, Kentucky Watershed Watch, 2017-Current

Member, Supporting Heroes, Occupational Cancer Committee, 2018-Current

University Service

Director, WKU Center for Environmental and Workplace Health in the College of Health and Human Services (August 15, 2017 – Current) – Direct all aspects of planning, management, research, development, and outreach related to the Center. Research initiatives include Firefighter Health, Occupational Safety and Health, Environmental Health, Stormwater Management, Workplace Health Promotion, and Emergency Management and Preparedness.

Director, Department of Public Health, Environmental and Occupational Health Science Programs (June 1, 2016 – Current) - Direct program curriculum development, manage program assessment, faculty development and mentoring, lead program faculty and collaboration, advise students, direct internship programs, strategic planning, and ensure attainment of program goals and objectives.

Member, CHHS Strategic Plan Subcommittee, International Experiences and Study Away (November 1, 2016 - Current) – Served to develop strategies to accomplish the international experiences and study away objectives stated in the CHHS 2016 Strategic Plan.

Member, CHHS Strategic Plan Subcommittee, Research (November 1, 2016 - Current) – Serve to develop strategies to accomplish the research objectives stated in the CHHS 2016 Strategic Plan.

Member, CHHS Dean's Strategic Planning Committee – Serve to develop a strategic plan for the College of Health and Human Services. (2016 - 2018). Reviewed and updated the 2006 strategic plan and revised vision, mission, and values.

Chair, EOHS Assistant Professor Search Committee (October 15, 2017 – May 15, 2018). Reviewed and interviewed candidates for the Assistant Professor tenure track position. Successful search. Dr. Edrisa Sanyang selected as the candidate for the position.

Chair, EOHS Assistant Professor Search Committee (October 14, 2015 – March 15, 2016). Reviewed and interviewed candidates for the Assistant Professor tenure track position. Successful search. Dr. Jooyeon Hwang selected as the candidate for the position.

Environmental Institute Steering Committee (2013-2014) – Development of an Environmental Institute at WKU for Research, Service, and Outreach, appointed by the Vice President for Research

Public Health Committee (2003-Current) – Development and review of Dept. of Public Health policies and procedures, curriculum review, and assessment of student and alumni data

Master of Public Health Committee (2003-2017) - Preparation of materials for CEPH accreditation of MPH program, graduate comprehensive exam, policies and procedures, program assessment, and evaluation of program goals and objectives

Director, Dept. of Public Health, Environmental Health Science Program (2004-2012, 2014-May 31, 2016), faculty development and mentoring, undergraduate program and graduate MPH concentration, direct academic programs, advise students, manage internship program, market program to extended campuses, assess program, and develop business plans for future growth

Member, WKU Graduate Faculty, 2003 - current

Member, WKU Graduate Council, 2009-2010

Chair, Environmental and Occupational Health Science Committee, faculty development and mentoring, curriculum development and review, policies and procedures, development of a research agenda, space and facilities, program review and assessment – 2015 - Current

Chair, Environmental Health Science Committee, faculty development and mentoring, curriculum development and review, policies and procedures, space and facilities, develop growth plans, and provide recommendations to Department Head, 2004 – 2012, 2014-2015

College of Health and Human Services, Space and Facilities Committee, review space and facilities for CHHS, develop recommendations for space and facilities, and report findings to CHHS Dean, 2004-2012

College of Health and Human Services, Graduate Curriculum Committee, Alternate Member, review graduate curriculum changes and make recommendations for graduate curriculum, 2012-Current

Environmental Health Science Student Association, Faculty Advisor, advise students on actions to attain the goals of the EHSSC Student Association, and direct service learning and research – 2012-Current

Public and Community Service

Technical Advisor for Stormwater and Watershed Management. Includes Student Research and Service Learning. City of Portland, TN. Public Works, Stormwater Management, 2016 – Current

Member, Technical Advisor, Kentucky Department of Public Health, Environmental Public Health Tracking Network, 2014-2018

Technical Assistance to Kentucky Emergency Management, Hazardous Materials Emergency Preparedness, Development of Program Goals, Research Needs, and Program Proposals, 2010 – Current

Technical Assistance to Communities Throughout Kentucky, Hazardous Materials Emergency Preparedness, 2010 – Current

Technical Advisor for Stormwater and Watershed Management. Includes Student Research and Service Learning. City of Goodlettsville, TN. Public Works, Stormwater Management, 2010 – Current

Technical Advisor for Stormwater and Watershed Management. Includes Student Research and Service Learning. City of Millersville, TN. Public Works, Stormwater Management, 2010 – 2015

Technical Assistance to Warren County Emergency Management, Local Emergency Planning Committee, Development of Grant Proposal for Hazardous Chemical Transport and Safety in Warren County, KY, Spring 2010

Technical Assistance to City of Bowling Green, Public Works Department, Stormwater Management Program, Illicit Discharge Detection, Directed Student Research and Service Learning Project, Fall 2007 – 2008

Technical Assistance to Warren County, Kentucky, Stormwater Management Program, Illicit Discharge Detection, Directed Student Research and Service Learning Projects, Assistance with Household Hazardous Waste Day, Fall 2013 – Current

Technical Assistance to City of Bowling Green and Warren County, Emergency Management Program, Analysis of Hazardous Chemical Use and Transportation in Bowling Green and Warren County, Directed Student Research and Service Learning Project, Spring 2006-2007

Scientific Advisor and Technical Assistance to water systems and communities in rural Kentucky for Source Water Protection and Water Quality Issues – 2000 - Current

Volunteer, Science Lab Volunteer Lecturer and Classroom Volunteer, McNeill Elementary School, 2001-2007

Deacon, Teacher, Missionary and Volunteer, Eastwood Baptist Church, Bowling Green, KY, 2001 – Current

Youth Baseball, Softball, Basketball, and Football Coach, Warren County Parks and Recreation and City of Bowling Green, 2001- 2014, 2018-Current

Theses, Capstones, and Directed Student Research

Master Thesis Chair. Chaudhari, Mamata. "The Risk of Improper Turnout Gear Storage and Contamination of Volunteer Firefighters Personal Vehicles", (To be completed Fall 2019). *Master of Science, Environmental and Occupational Health Science.*

Master Thesis Chair. Gilbert, Weylin. "Volunteer Firefighter Cancer Risk in Northwestern Kentucky", (To be completed Summer 2019). *Master of Science, Environmental and Occupational Hdealth Science.*

PI and Research Director. Students - Merkson, F., W., Gilbert, G., A. Patel, and G. Patrick. "Watershed Health Assessments in Mansker Creek Watershed, City of Goodlettsville, TN", (To be completed Spring 2019).

Master Thesis Chair. Gadde, Divya. "Assessment of Ergonomics in Indian Dental Practice: A Workplace Analysis" (2018). *Master of Science, Environmental and Occupational Health Science.*

Master Thesis Chair. Givan, Ethan. "Evaluation of E. Coli Surrogates for Produce Safety and Public Health Protection" (2015). *Master of Public Health, Environmental Health.*

MPH Capstone Chair. Obuhoro, Olosengbuan. "Noise Assessment of Workers in a Bedding Manufacturing Facility" (2015). *Master of Public Health, Environmental Health*.

Graduate Assistant Supervisor. Rebecca Lauth. Watershed Health Assessment of the Mansker Creek Watershed and Evaluation of *E. coli* Surrogates for Produce Safety (2015).

Graduate Student Research Supervisor. Matthew Shirley. Watershed Health Assessment of the Mansker Creek Watershed (2015).

Graduate Research Assistant Supervisor. Ethan Givan. Evaluation of *E. coli* Surrogates for Produce Safety (2014-2015).

MPH Capstone Chair. Joshi, Awijeeta. "Analysis of the Mercury Fish Consumption Advisory for Public Health Protection in Kentucky" (2015). *Master of Public Health, Environmental Health*.

MPH Capstone Chair. Yang, Qi. "Evaluation of Foodborne Illnesses in the Barren River District Kentucky from 2003 through 2011" (2015). *Master of Public Health, Environmental Health*.

MPH Capstone Chair. Yang, Qi. "Evaluation of Foodborne Illnesses in the Barren River District Kentucky from 2003 through 2011" (2015). *Master of Public Health, Environmental Health*.

MPH Capstone Chair. Ruizi, Ge. "Evaluation of Atrazine Contamination of a Community Water Supply in Kentucky" (2015). *Master of Public Health, Environmental Health*.

MPH Capstone Chair. Sagi, Vishwaneth. "A Retrospective Analysis of Lung Cancer Demographics and Outcomes in the United States: A SEER Database Analysis." (2015). *Master of Public Health, Environmental Health*.

Honor's Thesis Chair. Hunter, Alexandra L., "Assessment of Estrogenic Compounds in a Wastewater Treatment Plant Influent and Effluent" (2015). *Honors College Capstone Experience/Thesis Projects.* Paper 584. http://digitalcommons.wku.edu/stu_hon_theses/584

Honor's Thesis Chair. Center, Rebecca, "Risk Assessment of Hazardous Materials Transported by Rail through the WKU and Bowling Green, Kentucky Corridor" (2015). *Honors College Capstone Experience/Thesis Projects.* Paper 583.
http://digitalcommons.wku.edu/stu_hon_theses/583

MPH Capstone Chair. Smith, Derek. "Public Health Risk Assessment of Emissions from Power Plants in Daviess County, Kentucky." (2014). *Master of Public Health, Environmental Health.*

MPH Capstone Chair. Brown, Jacqueline. "Trends of Hazardous Materials Transport on the Interstate System in Kentucky." (2014). *Master of Public Health, Environmental Health*.

MPH Capstone Chair. Eagleson, Jacob. "Risk Assessment of Hazardous Materials Incidents in Henderson, Kentucky" (2013). *Master of Public Health, Environmental Health Capstone*.

MPH Capstone Chair. Grigsby, Roni. "Detection of Estrogenic Compounds in the Barren River Watershed" (2013). *Master of Public Health, Environmental Health Capstone*.

MPH Capstone Chair. Nwosu, Usonwanne. "Drinking Water Fluoridation and Dental Caries in Children of South Central Kentucky" (2013). *Master of Public Health, Environmental Health Capstone.*

Honor's Thesis Chair. Barringer, Ellen R. "Impact of Storm Events on Water Quality of a Karst Stream and Implications for Public Health Protection at a Historic Landmark" (2013). *Honors College Capstone Experience/Thesis Projects.* Paper 416.
http://digitalcommons.wku.edu/stu_hon_theses/416

Honor's Thesis Chair. Brown, Jacqueline, "The Evaluation of Water Quality and Weather Patterns as Indicators for Escherichia Coli in Slaters Creek Watershed in Millersville, Tennessee" (2012). *Honors College Capstone Experience/Thesis Projects.* Paper 347. http://digitalcommons.wku.edu/stu_hon_theses/347

MPH Capstone Chair. Nair, Rasmi. 2010. "Water Use and Public Health Implications in Gales Point, Belize" (2010). Proposal complete, research conducted, and paper in review.

Undergraduate Student Research Supervisor. Cuarta, Jacob and A. Kirk. 2010. Senior Seminar Research Project, Assessment of water quality treatment in a constructed wetland roadway runoff during storm events. Proposal in progress.

Graduate Student Research Project Supervisor. Norris, Jordan and M. Calico. 2009-2010. MPH Research Project, Assessment of public health in the village of Gales Point, Belize. Work published at KPHA conference 2009, on WKU TopScholar, and presented at the WKU International Service Learning Symposium.

Graduate Student Research Project Supervisor. Hill, Matthew and S. Ranapurwala. 2008-2009. MPH Research Project, Environmental health assessment of the village of Gales Point, Belize. Work published at APHA conference 2009.

Graduate Student Research Project Supervisor. Hill, Matthew. 2008-2009. Environmental health assessment of the village of Gales Point, Belize. Work published at APHA conference 2009.

MPH Capstone Chair. Melky, Shaden. "Assessment of foliar ozone injury at Mammoth Cave National Park in the Cumberland–Piedmont Network of National Parks in the United States" 2009. Western Kentucky University, Department of Public Health, MPH Capstone Project.

Master Thesis Chair. Gubari, Najla. "Exposure assessment of mercury in fish from Kentucky surface waters" (2005). Western Kentucky University, Department of Public Health, MPH Thesis.

Master Thesis Research Supervisor and Committee Member. Golla, Vijay. "Study of the distribution and variation of the herbicide atrazine in finished drinking water at a small community water system in Kentucky" (2003). Western Kentucky University, Department of Public Health, MPH Thesis. 98 pp.

Student Engagement Research and Service

Assessment of Diesel Particulate Matter in City of Bowling Green Fire Stations. 15 students (five graduate and 10 undergraduate students) conducted air sampling and particulate matter monitoring.

Watershed Health Corridor Assessment. Eight graduate students conducted research to assess the watershed health of stream corridors in the City of Goodlettsville, TN. Students collaborated with the stormwater manager.

Evaluation of Construction Site Runoff on Stream Water Quality in the City of Goodlettsville, TN. Five graduate students conducted research to assess the impact of construction site stormwaer runoff on stream water quality, analyze data and develop a final report.

NIOSH Training Program Grant. 20 undergraduate students and 8 graduate students engaged in field trips to local industries, internships, and seminars.

## Vijay Golla, PhD, MPH


PRESENT POSITION

Associate Dean of Research and Administration

College of Health and Human Services

Professor, Department of Public Health

Western Kentucky University

OFFICE ADDRESS

College of Health and Human Services

Western Kentucky University

1906 College Heights Blvd. #11038

Bowling Green, Kentucky 42104

Email: vijay.golla@wku.edu

Phone: 270-745-2448

Fax: 270-745-7073


EDUCATION

PhD: Occupational and Environmental Health 2007

The University of Iowa, Iowa City, Iowa

Dissertation: Pesticide levels and adsorbed doses inside Iowa homes over time: Farm families' potential long-term exposures.

MPH: Master of Public Health 2003

Western Kentucky University, Bowling Green, Kentucky

Thesis: Study of the distribution and variation of the herbicide atrazine in finished drinking water at a small community water system in Kentucky.

MBBS: Bachelor of Medicine/Bachelor of Surgery 2001

Andhra Medical College, N.T.R. University of Health Sciences, Vijayawada, India.

EMPLOYMENT HISTORY

Associate Dean of Research and Administration 2017 to Present

College of Health and Human Services

Western Kentucky University

Bowling Green, Kentucky 42101

Associate Dean for Research 2015 to 2017

College of Health and Human Services

Western Kentucky University

Bowling Green, Kentucky 42101

Professor (with Tenure) 2018 to Present

Department of Public Health

College of Health and Human Services

Western Kentucky University

Bowling Green, Kentucky 42101

Co-Director (Interim) 2017

School of Kinesiology, Recreation and Sport

College of Health and Human Services

Western Kentucky University

Bowling Green, Kentucky 42101

Graduate Program Director 2015

Environmental and Occupational Health Science

Department of Public Health

Western Kentucky University

Bowling Green, Kentucky 42101

Associate Professor (with Tenure) 2011 to 2018

Department of Public Health

College of Health and Human Services

Western Kentucky University

Bowling Green, Kentucky 42101

Assistant Professor 2006 to 2011

Department of Public Health

College of Health and Human Services

Western Kentucky University

Bowling Green, Kentucky 42101

Graduate Research Assistant 2003 to 2005

Department of Occupational and Environmental Health

College of Public Health

The University of Iowa

Iowa City, Iowa 52246

Research Assistant 2002 to 2003

Center for Water Resource Studies

Western Kentucky University

Bowling Green, Kentucky 42101

Resident Intern 2000 to 2001

King George Hospital

Andhra Medical College

Visakhapatnam, India

FACULTY AND ADMINISTRATIVE LEADERSHIP APPOINTMENTS

Strategic and Institutional Planning

Member, WKU Strategic Planning Steering Committee, 2017 – Present

Member, WKU Benefits Committee, 2011 – Present

CHHS Representative, WKU Space Committee, 2015- Present

Faculty Representative, University Academic Complaints Committee, 2010- 2012

Faculty Representative for CHHS, University Ad Hoc Committee on Credits and Graduation, 2010

Member, CHHS Administrative Council, 2015-Present

Chair, CHHS Tenure and Promotion Revision Committee, 2015-2017

Member, CHHS Workload/ Overload Committee, 2015-2017

Member, CHHS Instructional Expectations and Workload Credit Committee, 2015-2017

Member, CHHS Strategic Planning Sub-Committee (Research), 2016-2017

Member, Dean's Advisory Committee, 2010-2012

Accreditation and Program Review; Curriculum and Academic Planning

Faculty Member, Bachelor of Science in Public Health (BSPH) and Master of Public Health (MPH) Programs' CEPH (Council on Education for Public Health) Accreditation, 2016-2017

Member, Public Health Program Assessment Committee, 2013 – 2015

Alternate Member, College Graduate Curriculum Committee, 2013

Alternate Member, University Graduate Curriculum Committee, 2012

Member, MPH Program Curriculum, Culminating Experience, and Student Orientation Program Committees, 2006 - 2013

Member, Environmental Health Science (EHS) Program Committee, 2006 - Present

Faculty Co-Advisor, Environmental Health Science Student Association, 2006 - 2015

Research

Member, WKU Research and Creative Activities Council, 2015 - Present

Grant Reviewer, WKU Research and Creative Activities Program, 2015- 2017

Research and Creative Activities (RCAP) Program Review Committee, 2015-2016

Chair, CHHS Research Committee, 2015-Present

Member, College Research Committee, 2011-2013

Search Committees:

Member, Search Committee for Associate Provost for Research and Creative Activity, 2016

Member, CHHS IT Consultant Search Committee, 2016-2017

Chair, CHHS Grant Accounts Specialist Search Committee, 2016

Member, CHHS Dean Search Committee, 2013-2014

Member, Search Committee for University Employee Wellness Manager, 2011

Member, Search Committee for Public Health Department Head, 2007

Member, Search Committee for Faculty position in Environmental Health, 2013 - 2015

Member, Search Committee for Faculty position in Epidemiology, 2012

Other:

Journal Reviewer, Annals of Work Exposures and Health February 2016 – Present

Journal Reviewer, International Journal of Environmental Research and Public Health February 2016 – Present

Member and Grant Reviewer, Pilot Research Project Training Program (PRP), NIOSH Education and Research Center (ERC), Cincinnati October 2010—Present

External Advisory Board Member, Central Appalachian Regional Education and Research Center, University of Kentucky, Lexington, Kentucky Nov. 2017 – Present

Member, Kentucky Environmental Public Health Tracking Network (KYEPHTN), Kentucky Department for Public Health, Frankfort, Kentucky October 2010—July 2014

Member, Health Impact Assessment Steering Committee, Green River District Health Department, Owensboro, Kentucky August 2010 – July 2012

Corresponding Member, NORA (National Occupational Research Agenda) Agriculture, Forestry and Fishing Sector Council, Washington DC August 2007- Present

PEER-REVIEWED PUBLICATIONS

(Underlined names represent student mentees.)

Cecilia Watkins, Gretchen Macy, Vijay Golla, Grace Lartey, Jacqueline Basham. The "Total Worker Health" Concept: A Case Study in a Rural Workplace," Journal of Occupational and Environmental Medicine. Vol. 60, No. 5, May 2018.

Macy G, Watkins C, Lartey G, Golla V. Depression Screening, Education, and Treatment at the Workplace: A Pilot Study Utilizing the CDC Health Scorecard. Journal of Workplace Behavioral Health. February 2017.

Jonathan Suhl, Vijay Golla, Jessica Rinsky, and Claudia Hopenhayn. Atrazine in Kentucky Drinking Water: Inter-Method Comparison of U.S. EPA Analytical Methods 507 and 508.1. Journal of Environmental Health. Volume# 79.5, Page # E1-E6. December 2016.

Cecilia Watkins, Gretchen Macy, Grace Lartey, Vijay Golla. Kentucky Worksite Health Promotion 2014 Survey Results. International Journal of Workplace Health Management. Vol 9, No. 4, pp.398-410, 2016.

Vijay Golla, Brian Curwin, Wayne Sanderson, and Marcia Nishioka, "Pesticide Concentrations in Vacuum Dust from Farm Homes: Variation between Planting and Nonplanting Seasons," ISRN Public Health, vol. 2012, Article ID 539397, 10 pages, 2012. https://doi.org/10.5402/2012/539397.

Jessica L. Rinsky, MPH; Claudia Hopenhayn, MPH, PhD; Vijay Golla, PhD, MPH; Steve Browning, PhD and Heather M. Bush, PhD: Atrazine Exposure in Public Drinking Water and Preterm Birth. Public Health Reports, 127(1):72-80. January 2012.

Vijay Golla, Jerrod Nelms, Ritchie Taylor, Sandeep Mishra. Pesticide Concentrations in Drinking Water from Farm Homes: Variation between Community Water Supply and Well-Water. Journal of Environmental Science and Engineering. 5:453-459. August 2011.

Stephen J. Reynolds, Jason Nakatsu, Marvin Tillery, Thomas Keefe, John Mehaffy, Peter S. Thorne, Kelley Donham, Matthew Nonnenmann, Vijay Golla, Patrick O'Shaughnessy. Field and Wind Tunnel Comparison of Four Aerosol Samplers Using Agricultural Dusts. Annals of Occupational Hygiene 2009; doi: 10.1093/annhyg/mep021.

Cecilia M. Watkins, Grace K. Lartey, Vijay Golla, Jagdish Khubchandani. Worker's Perception: Environmental Factors Influencing Obesity at the Workplace. American Journal of Health Studies, 23 (2):74-80 2008.

Patrick T. O'Shaughnessy, Julie Lo, Vijay Golla, Jason Nakatsu, Marvin I. Tillery, and Stephen Reynolds. Correction of Sampler-to-Sampler Comparisons Based on Aerosol Size Distribution. Journal of Occupational and Environmental Hygiene, 4: 237–245, April 2007.

Taylor R.D, Dickson K.L, and Golla V. Drought Induced Dissolved Oxygen Dynamics of an Effluent Dominated Stream Entering a Reservoir Backwater and Implications for Environmental Compliance. Environmental Informatics Archives, 4: 408-418, April 2006.

Golla V, Heitbrink W. Control Technology for Crystalline Silica Exposures in Construction: Wet Abrasive Blasting. Journal of Occupational and Environmental Hygiene, 1: D26-D32, March 2004.

Aditya Stanam, Vijay Golla, Shradha J. Vasa, Ritchie D. Taylor. Exposure to Computer work and Prevalence of Musculoskeletal Symptoms Among University Employees: A Cross-Sectional Study. (In Press, Journal of Environmental Health, ID: 2017-JEH-130).

Under Review

Hwang, J., R. Taylor, M. Cann, V. Golla, W. Gilbert. 2018. Assessment of Dielsel Particulates in Fire Departments Using Different Exposure Metrics: Pilot Study. Fire Safety Journal. (FISJ_2018_374).

Taylor, Ritchie; Macy, Gretchen; Hwang, Jooyeon; Golla, Vijay; Cann, Charles. 2018. Using Community Collaboration to Engage Firefighters in Rural Communities. The Journal of Rural Health. (JRH-2018-10-0311).

Hwang, J., R. Taylor, G. Macy, M. Cann, and V. Golla. 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants. Journal of Occupational and Environmental Hygiene. (ID: JOEH-17-0132).

Hwang, J., R. Taylor, C. Cann, P. Norris, and V. Golla. 2018. Evaluation of accumulated polycyclic aromatic hydrocarbons and asbestiform fibers on firefighter vehicles: Pilot Study. Fire Technology. (FIRE-D-18-00209).

Taylor, R., V. Golla, and J. Basham. 2017. A Comparison of Hazardous Materials Commodity Flow Across the Urban to Rural Gradient in Five Kentucky Counties. Journal of Environmental Health. (Paper #: 2017-JEH-067).

TECHNICAL REPORTS

(Underlined names represent student mentees.)

Taylor, R., Basham, J., & Golla, V, "Pike County, Kentucky Hazardous Materials Commodity Flow Analysis: Final Report", September 2018.

Taylor, Ritchie D.; Brown, Jacqueline; Golla, Vijay, "Oldham County, Kentucky Hazardous Material Commodity Flow Study: Final Report", August 2017.

Taylor, Ritchie D.; Golla, Vijay; Brown, Jacqueline, "Shelby County Hazardous Material Commodity Flow Study: Final Report", August 2015.

Golla, Vijay; Taylor, Ritchie D.; Brown, Jacqueline; and Danny Blevins, "Rowan County Hazardous Material Commodity Flow Study: Final Report", August 2014.

Taylor, Ritchie D.; Golla, Vijay; Brown, Jacqueline; and Wesley Delk, "Montgomery County Hazardous Material Commodity Flow Study: Final Report", August 2014.

Golla, Vijay; Taylor, Ritchie D.; Brown, Jacqueline; Makinen, Bryan; Richards, Carl; and Makinen, Bryan, "Madison County, Kentucky, Hazardous Materials Commodity Flow Analysis: Final Report", August 2014.

Cecilia Watkins, PhD, MS, CHES, 1 Grace Lartey, PhD, MA, 1 Gretchen Macy, EdD, MPH, 1 Vijay Golla, PhD, MBBS, MPH, 1 Teresa Lovely, MS, CHES, 2," Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard", April, 2014.

Golla, Vijay; Taylor, Ritchie D.; Eagleson, Jacob; Givan, Ethan; and Payne, Richard, "Daviess County Hazardous Material Commodity Flow Study: Final Report", September 2013.

Taylor, Ritchie D.; Golla, Vijay; Eagleson, Jacob; Givan, Ethan; and Koerber, Larry, "Henderson County Hazardous Material Commodity Flow Study: Final Report", September 2013.

Golla, Vijay; Taylor, Ritchie D.; Suhl, Jonathan; Eagleson, Jacob; Chavan, Prachi; Grigsby, Roni; and Bottom, Jim, "Louisville / Jefferson County Hazardous Material Commodity Flow Analysis: Final Report", August 2012.

Golla, Vijay; Taylor, Ritchie D.; Stanam, Aditya; Chavan, Prachi; Ellis, Connie; Western Kentucky University College of Health and Human Services, Dept. of Public Health; Makinen, Bryan; Richards, Carl; and Madison County Local Emergency Planning Committee, "Madison County, Kentucky, Hazardous Materials Commodity Flow Analysis, Final Report", August 2011.

Taylor, Ritchie; Golla, Vijay; Myatt, Bob; Advani, Shailesh; Gole, Pragati; Nair, Rasmi; Brown, Jacqueline; Willis, Nate; and Barringer, Ellen, "Warren County, Kentucky Hazardous Materials Commodity Flow Analysis, Final Report", August 2010.

PEER-REVIEWED PRESENTATIONS

"Distribution and determinants of Telemedical care usage in California" at the American Public Health Association Annual Conference, San Diego, CA, November 12, 2018.

"Assessment of ergonomics in Indian dental practice" at the American Public Health Association Annual Conference, San Diego, CA, November 12, 2018.

"Exposure to Residual Polycyclic Aromatic Hydrocarbons (PAH) in Firefighter Vehicles" at the American Industrial Hygiene Conference and Exposition, Philadelphia, PA, May 21, 2018.

"Occupational Exposure to Endotoxins in Airborne Size-Based Particles in Kentucky's Equine Industry" at Southeastern Regional ERC (Education and Research Center) Symposium, Savannah, GA, April 3, 2018.

"Exposure to Computer Work and Prevalence of Musculoskeletal Symptoms Among University Employees: A Cross- Sectional Study" at American Public Health Association Annual Conference, Atlanta, Georgia, November 7, 2017.

"Trends of Oral Health Status in Rural Kentucky" at Kentucky Public Health Association Annual Conference, Owensboro, Kentucky, March 12, 2017.

"Occupational Exposure to Endotoxins in Airborne Particles in Kentucky's Equine Industry" at Southeast Center for Agricultural Health and Injury Prevention, University of Kentucky, Lexington, Kentucky, November 18, 2016.

"A Comparison of Hazardous Materials Flow in Five Kentucky Counties: Urban vs. Rural Gradient" at the American Industrial Hygiene Conference and Exposition, Baltimore, Maryland, May 25, 2016.

"Results of the Kentucky Worksite Assessment: Utilization of the CDC's Scorecard" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, April 16, 2014.

"Hazardous Materials Commodity Flow Analysis in Madison County, Kentucky" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, March 28, 2012.

"Hazardous Materials Commodity Flow Analysis: Warren County, Kentucky" at the American Public Health Association Annual Conference, Washington D.C, October 29 – November 2, 2011.

"Occupational Hazards Associated with the Dental Profession" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, March 30, 2010.

"Nanotechnology and Public Health" at the American Public Health Association Annual Conference, Philadelphia, Pennsylvania, November 7-11, 2009.

"Atrazine in Drinking Water: Exposure Assessment and Analysis" at the American Public Health Association Annual Conference, San Diego, California, October 25-29, 2008.

"An Integrated Approach for Source Water Protection and Awareness in Rural Agricultural Watersheds" at the American Public Health Association Annual Conference, Washington, DC, November 3-7, 2007.

"A Look at Preparedness for Possible Avian Influenza Outbreak" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, March 28, 2007.

"Correction of Sampler-to-Sampler Comparisons" at American Association for Aerosol Research (AAAR) Annual Conference, Reno, Nevada, September 2007.

"A Comparison of the Collection Characteristics of Size-Selective Samplers for Different Dust Types during Laboratory Trials" at the American Industrial Hygiene Conference and Exposition, Chicago, Illinois, May 13-18, 2006.

"Pesticide Levels and Absorbed Doses Inside Iowa Homes over Time: Farm Families' Potential Long-term Exposures" at Midwest Rural Agricultural Safety and Health Forum, Johnston, Iowa, October 2005.

RESEARCH/ GRANT-FUNDED PROJECTS

ONGOING

CDC/ NIOSH Training Project Grant (TPG) $300,000

Environmental Health Science Program at Western Kentucky University

Golla, V. (PI) 07/2016 – Present

CDC/NIOSH University of Cincinnati Education and Research Center $6,950

Assessment of Diesel Particulates in Fire Departments using Different Exposure Metrics

Golla, V (Co-I), Hwang, J (PI) 05/2017 – Present

Kentucky Division of Emergency Management $34,670

Pike County Kentucky Commodity Flow Analysis

Golla, V. (Co-I), Taylor, R (PI) 12/2017 – Present

PENDING

CDC/ NIOSH Training Project Grant (TPG) $449,223

Environmental & Occupational Health Science Program at Western Kentucky University

Golla, V. (PI)

COMPLETED

WKU Research and Creative Activities Program $15,936

Development of the Hazardous Materials Information System for Emergency Response (HMISFER) Golla, V (Co-PI), Taylor, R (PI) 05/2016 – 12/2017

National Institute of Food and Agriculture $131,365

Building Teaching and Research Capacity at the Food Science Cluster of Western Kentucky University to Control Salmonella in Chicken Products

Golla, V. (Co-Project Director); Webb, C (Project Director) 08/2015 – 06/2018

WKU Research and Creative Activities Program $16,000

Evaluation of Accumulated Contaminants on Firefighter Vehicles

Golla, V (Co-I), Hwang, J (PI) 05/2016 – 12/2017

CDC/NIOSH Central Appalachian Regional Education and Research Center $12,000

Total Worker Health in Rural Workplaces: Challenges of Implementation and Follow-up

Golla, V (Co-PI), Watkins, C (PI) 08/2016 – 06/2017

CDC/NIOSH Southeast Center for Agricultural Health and Injury Prevention $12,000

Occupational Exposure to Endotoxins in Airborne Particles in Kentucky's Equine Industry

Golla, V. (Co-PI), Hwang, J (PI) 10/2015 – 08/2017

Kentucky Division of Emergency Management $27,559

Oldham County Kentucky Commodity Flow Analysis

Golla, V. (Co-PI), Taylor, R (PI) 12/2016 – 08/2017

JJ Keller and Associates Inc. $27,500

Safety and Compliance Grant Program at WKU

Golla, V (Project Director) 01/06 – 06/18

Kentucky Division of Emergency Management $38,215

Commodity Flow Study of Hazardous Material Transport in Shelby County, Kentucky

Golla, V. (Co- PI), Taylor, R. D. (PI) 12/14 – 08/15

Commonwealth of Kentucky Office of Commercialization and Innovation, $100,000

Hazardous Material Information System for Emergency Response: HMISFER Project

Golla, V. (Co-PI), Taylor, R D (Co-PI), Baylis, G (Co-PI), Tivol, E (Co-PI) 3/12-12/14

Kentucky Department for Public Health $28,105

Kentucky Worksite Wellness Assessment Grant: (CDC Coop. Agrmt. 2B01DP009022-13)

Golla, V (Co-I) Watkins, C (PI) 04/13 – 04/14

Kentucky Division of Emergency Management $96,454

Commodity Flow Study of Hazardous Material Transport in Henderson, Daviess, Madison, Rowan, and Montgomery Counties, Kentucky.

Golla, V (Co- PI), Taylor, R (PI) 11/12–08/2014

Kentucky Division of Emergency Management $84,488

Commodity Flow Study of Hazardous Material Transport in Jefferson County and Madison County, Kentucky.

Golla, (PI) 05/10 – 10/12

WKU College of Health and Human Services Faculty Grant $2,894

The Study of Ergonomic Exposures and Prevalence of Computer Related Musculoskeletal Symptoms among University Employees.

Golla, V (PI) 05/11 – 08/12

CDC/ NIOSH Southeast Center for Agricultural Health and Injury Prevention $34,765

Linkage of Atrazine Exposure and Birth Data in Kentucky: Assessment of Data Sources and Needs

Golla, V (Co-I), Hopenhayn, C (PI) 10/08 – 10/10

CDC/ NIOSH Heartland Center for Occupational Health and Safety $15,000

Pesticide Levels and Absorbed Doses Inside Iowa Homes Over Time: Farm Families'

Potential Long-Term Exposures

Golla, V (PI) 11/04 – 06/08

WKU Junior Faculty Grant and CHHS Faculty Grant $5,422

Farm Families'' Potential Exposure to Pesticides through Drinking Water
Golla, V (PI) 10/06–05/08

PROFESSIONAL TRAININGS/ CERTIFICATIONS/ WORKSHOPS

KET Professional Development Certificate, KET Lexington, September 2012.

Environmental Public Health Tracking Certification, National Environmental Health Association, March 2011.

NIOSH Agriculture, Forestry and Fishing Occupational Safety and Health Workshop", NIOSH, Cincinnati, OH, August, 2009.

Advisor Training, College of Health and Human Services, Bowling Green, KY, April, 2008.

"Planning the Budget for Your Grant Proposal", Office of Sponsored Programs, WKU, Bowling Green, Kentucky, February, 2008.

"Online Teaching Summer Camp", WKU Information Technology Services, Bowling Green, KY, May, 2007.

HAZWOPER-Hazardous Waste Operations and Emergency Response Certification, WKU, 2002.

COURSES TAUGHT

Teaching Assignments (classroom, seminar, teaching lab)

2014-2018

| | | | |
|---|---|---|---|
| PH 584: Principles of Environmental Health | 3 | Instructor | 100% |
| PH 385: Environmental Health | 3 | Instructor | 100% |
| EHS 580: Solid and Hazardous Wastes | 3 | Instructor | 100% |
| EHS 572: Environmental and Occupational Epidemiology | 3 | Instructor | 100% |
| ENV 280: Intro to Environmental Science | 3 | Instructor | 100% |
| ENV 480: Hazardous and Solid Waste | 3 | Instructor | 100% |
| PH 546: Graduate Internship | 3 | Instructor | 100% |
| ENV 280: Intro to Environmental Science | 3 | Instructor | 100% |

| | | |
|---|---|---|
| EOHS 570: Industrial Hygiene 100% | 3 | Instructor |
| EOHS 550: Principles of Occupational Safety and Health 12.5% | 3 | Guest Lecturer |
| ENV 321: Fundamentals of Industrial Hygiene 100% | 3 | Instructor |
| ENV 323: Fundamentals of Industrial Hygiene Lab | 3 | Lab Instructor 100% |
| PH 582: Epidemiology | 3 | Guest Lecturer 6.25% |
| 2006-2013 | | |
| ENV 280: Intro to Environmental Science | 3 | Instructor 100% |
| ENV 480: Hazardous and Solid Waste | 3 | Instructor 100% |
| ENV 120: Intro to Occupational Safety and Health | 3 | Instructor 100% |
| PH 600: Graduate Maintaining Matriculation 100% | 1 | Instructor |
| ENV 321: Fundamentals of Industrial Hygiene 100% | 3 | Instructor |
| ENV 323: Fundamentals of Industrial Hygiene Lab 100% | 1 | Lab Instructor |
| EHS 580: Solid and Hazardous Wastes | 3 | Instructor 100% |
| EHS 572: Environmental and Occupational Epidemiology 100% | 3 | Instructor |
| PH 584: Principles of Environmental Health | 3 | Instructor 100% |
| PH 385: Environmental Health 100% | 3 | Instructor |
| PH 599: Thesis Research/ Writing | 6 | Supervisor 100% |
| HAZWOPER (Haz. Waste Operations & Emergency Response) 33.33% | 3 | Instructor |

MEMBERSHIP AND ACTIVITIES

Member, American Public Health Association, August 2007 to Present.

Member, American Industrial Hygiene Association, August 2003 to Present.

Member, Kentucky Public Health Association, March 2007 to Present.

President, Iowa-Illinois Industrial Hygiene Student Association, The University of Iowa, Iowa City, Iowa, September 2003-August 2004.

STUDENT SUPERVISION AND MENTORING

Graduate Thesis Research and Capstone Project Committees

Divya Gadde, Environmental and Occupational Health Science, 2018.

"Study of Factors Affecting the Use/Disuse of Ergonomic Practices in Indian Dental Practice"

Rebecca Lauth, Environmental and Occupational Health Science, 2017.

"Analysis of Hazardous Materials Incidents in Kentucky—Statewide Risk Analysis"

Ethan Givan, Public Health-Environmental Health, 2015.

"Selection of Pathogen Surrogates and Fresh Produce Safety: Implications for Public Health and Irrigation Water Quality Policy"

Sandeep Mishra, Epidemiology and International Health, 2014.

Dr.PH in Epidemiology and International Health, University of Alabama at Birmingham, "To Study the Relationship between Indoor Air Pollutants and Anemia in India"

Morgan Webb-Yeates, Homeland Security Science, 2013.

"Food Defense among Meat Processing and Food Service Establishments in Kentucky"

Jonathan Suhl, Public Health-Environmental Health, 2012.

"Inter-Method Comparison of EPA Analytical Methods 507 and 508.1: To Test for Atrazine in Kentucky Drinking Water"

Jacqueline Brown, Public Health-Environmental Health, 2014.

"Trends in Hazardous Material Transportation and Risk Assessment"

Derek B. Smith, Public Health-Environmental Health, 2014.

"Assessment of Ambient Air Quality as Influenced by Wind Direction in Daviess County, Kentucky"

Holly Vandiver, Public Health-Environmental Health, 2013.

"Emergency Preparedness Assessment of Warren County, Kentucky"

Phani Akella, Public Health-Environmental Health, 2013.

"A Multicenter Study of Asthma Hospitalization Prevalence and Its Variability with Local Temperature Changes"

Roni Grigsby, Public Health-Environmental Health, 2013. "Detecting Prescribed Synthetic Estrogen Compounds in the Barren River near Bowling Green, KY"

Connie Ellis, Public Health-Environmental Health, 2014.

"Variation in Radon Levels Inside Office Buildings of a University Campus"

Jacob Eagleson, Public Health-Environmental Health, 2013.

"Hazardous Material Transport Risk Assessment through Warren County, Kentucky"

Alok Amraotkar, Public Health-Environmental Health, 2011.

"Coliform Contamination in Natural Drinking Water Sources of Allen County, Kentucky"

Shaden Melky, Public Health-Environmental Health, 2007.

"A Study on Foliar Ozone Injury at Mammoth Cave National Park in the Cumberland–Piedmont Network"
Amar Kanekar, Public Health-Health Education, 2006.

"Factors Affecting Condom Usage among College Students"

Undergraduate Honors Thesis Committee

Rebecca Center, Environmental Health Science, 2015.

"Risk Assessment of Hazardous Materials Transported by Rail"

Alexandra Hunter, Environmental Health Science, 2015.

"Variance of Estrogenic Compounds Before and After Entering a Wastewater Treatment Plant"

Leslie Ford, Health Sciences, 2013.

"Socioeconomic Factors Affecting Access to Health Care and Health Outcomes in India"

Ellen Barringer, Environmental Health Science, 2013.

"Effect of Storm Events on Groundwater Quality Changes in the Lost River Karst Basin"

Jacqueline Brown, Environmental Health Science, 2012.

"The Evaluation of Water Quality and Weather Patterns as Indicators for Escherichia Coli in Slaters Creek Watershed in Millersville, Tennessee"

Student Field-Trips Conducted

Sumitomo Electric Wiring Systems Inc., Scottsville, KY, October 22, 2018 and October 30, 2015. Students observed and learned about the occupational environment and potential exposures and hazards at a work place.

K&S World Market and Farmers Market, Nashville, TN, September 18, 2015. Students observed and learned about food safety practices in action at two large food markets in Nashville Metropolitan area.

Toyo Automotive Parts (USA), Inc., Franklin, KY, September 23, 2014. Students observed and learned about the occupational environment and potential exposures and hazards at a work place.

General Motors Corvette Assembly Plant, Bowling Green, KY, April 22, 2014. Students observed and learned about the occupational environment and potential exposures and hazards at a work place.

Logan Aluminum, Russellville, KY, February, 2011, 2012, 2013 and 2014. Students observed and learned about the occupational environment and potential exposures and hazards at a work place.

Ensafe Environmental Consultants, Bowling Green, KY, December 3, 2013 and May 6, 2014. Students learned about industrial hygiene consulting opportunities and work opportunities in private industry.

Barren River District Health Department, Environmental Health Division, Bowling Green, KY, September 17, 2013. Students toured the health department and learned about the day-to-day operations of the environmental health personnel.

Berry Plastics, Franklin, KY, October 27, 2010. Student engagement and learning in Occupational Environments.

Logan Aluminum, Russellville, KY, March 24, 2010. Students observed and learned about the occupational environment and potential exposures and hazards at a work place.

Berry Plastics, Franklin, KY, October 15, 2009. Student engagement and learning in Industrial Hygiene and Safety.

Berry Plastics in Franklin, KY, October 28, 2008. Field activity organized by the American Association of Safety Engineers (ASSE) local chapter.

Bowling Green Waste Water Treatment Plant, October 14, 2008. Students observed and learned about water treatment processes.

Bowling Green Water Treatment Plant, September 16, 2008. Student participation and learning from plant operators and lab personnel at the water treatment plant.

Berry Plastics, Franklin, KY, February 26, 2008. Student engagement and learning in Industrial Hygiene and Safety.

Mammoth Cave National Park, October 11, 2006. Student learning on cave and karst topography and their relationship to environmental systems in Environmental Science.

Covalence Adhesives, Franklin, KY, April 18, 2006. Student engagement and learning in Industrial Hygiene and Safety.

AWARDS AND HONORS

Prolific Proposer FY 16, WKU Office of Sponsored Programs, Bowling Green, Kentucky, December 7, 2016.

Bill Patton Environmental Service Award, Kentucky Public Health Association, Louisville, Kentucky, March 2013.

Most Prolific Proposer by College Award, WKU Office of Research, Bowling Green, Kentucky, November 2012.

Nominated for WKU CHHS Faculty Research Award, 2012 and 2013.

Diversity Academic Achievement Award, WKU Office of Equal Opportunity, May 10, 2007.

Research Participation Award, 7th Annual Student Interdisciplinary Health Research Poster Session, The University of Iowa, Iowa City, Iowa, April 2005.

Iowa Governor's Occupational Health and Safety Scholarship Award, Des Moines, Iowa, November 2004.

American Industrial Hygiene Association Iowa-Illinois Local Section Scholarship Award, Iowa City, Iowa, March 2004 and 2005.

Certificate of Appreciation, Southwest Center for Agricultural Health, Injury Prevention, and Education, University of Texas at Tyler, February 12, 2004.

Kentucky Public Health Association Excellence in Scholarship Award, Department of Public Health, Western Kentucky University, Bowling Green, Kentucky, April 2003.

## CECILIA WATKINS, Ph.D., C.H.E.S.

cecilia.watkins@wku.edu

EDUCATION

Ph.D. Public Health

Human Ecology

University of Tennessee

Knoxville, TN 37919

August 2000

Cognate Area: Cultural Studies

Ph.D. Dissertation: Personal Health Risk Analysis of Seventh-day Adventist College Students and State University College Students: A Comparative Study, University of Tennessee, (2000).

Master of Science in Community Health, Western Kentucky University, Bowling Green, KY, 42101

(May, 1993). Dean's List.

Bachelor of Science in Community Health, Western Kentucky University, Bowling Green, KY, 42101

(May, 1992). Cum Laude

Associate in Business Administration, Western Kentucky University, Bowling Green, KY, 42101 (May, 1983).

PROFESSIONAL EXPERIENCE

January 2001-Present

Western Kentucky University

Department Of Public Health

1906 College Heights Blvd

Academic Complex 129F

Bowling Green, KY 42101-3576

*Professor*

August 1999-August 2000

University of Tennessee

1914 Andy Holt Avenue

Knoxville, TN 37996-2700

*Graduate Teaching Associate*

Public Health 110 Instructor

Human Sexuality Instructor

Drug Education Instructor

CPR Instructor

Student Advising

May 1995-May 1998

Dupont

4501 N. Access Road

Chattanooga, TN 37415

*Wellness Director*

Implemented Wellness Program for 1500 Employees.

Achieved Bronze Well Workplace Award for site.

Organized Wellness Core Team.

Organized and directed annual health fair for 5,000 plus attendees.

Organized Ergonomic Program and headed Ergonomic Core Team.

Member of the Nylon Ergonomic Team / Nylon North America Team.

Director of site fitness room.

Established all contracts and programs for wellness programs.

Developed disability program, which included wellness action plan.

August 1994-May 1995

Florida International University

Student Health Services

Miami, FL, 33101

*Senior Health Educator*

Freshman Experience Instructor.

Coordinator of the University Health Expo.

Supervised Aids Awareness Program.

Supervised S.H.A.P.E., Student Health Advocates for Peer Education.

Editor of HealthWatch, Campus Health Newsletter.

Conducted all Fitness Profiles for Faculty, Staff, and Students.

August 1993-July 1994

Western Kentucky University

1 Big Red Way

Bowling Green, KY 42101

*Fitness Assessment Coordinator*

Conducted Fitness Assessments for faculty / staff.

Industrial Liaison

Designed and Implemented Wellness Programs

PUBLIC AND UNIVERSITY SERVICE

WKU Tobacco-free Taskforce Leader

Department Faculty Representative to University Libraries 2017

CHHS Applied Research Center: Proposal Application April 2017, Approved to start August, 2017

CDC's Total Worker Health Workforce Development Roundtable Planning Committee, 2016-17

CDC's NIOSH Total Worker Health - WKU Affiliate Meeting Coordinator, August 9, 2016

Program Director of the M.S. Environmental and Occupational Health Science, Spring 2016

Co-Director of the Environmental and Occupational Health Science Program, Fall 2015

HPV Planning Team (BRDHD) 2015

NIOSH Total Worker Health™ Affiliate Program Liaison, 2014 - Present

Annual Healthy Workplace Wellness Summit Planning Committee, 2015-Present

BRIGHT Coalition Member (Planning and Advisory Board) 2014-Present (Established from the BRDHD Planning Council)

Barren River District Health Department Planning Committee, 2011-2014

Roadmap to A Healthy Workplace Planning Committee, 2014-Present

Exhibitor at The Art & Science Health Promotion Conference, Colorado Springs, Colorado, 2014

Exhibitor at The Art & Science Health Promotion Conference, Hilton Head, SC, 2013

Curriculum Development:

Developed (assisted with two peers) Master of Science in Environmental and Occupational Health Science / Emphasis in Worksite Health Promotion, 2014

Developed Professional Worksite Health Promotion Certificate, 2013

Developed Worksite Health Promotion Graduate Certificate, 2012

Developed Worksite Health Promotion Graduate Course, 2011

Developed Worksite Health Promotion Undergraduate Certificate, 2010

Developed Worksite Health Promotion Minor, 2009

Developed Undergraduate Worksite Health Promotion Course, 2005

Exhibitor at The Art & Science Health Promotion Conference, San Diego, California, 2012

KPHA Board of Directors:

Kentucky KPHA Student Chapter Chair, 2010-14

KPHA Marketing Committee, 2010-11

Exhibitor at The Art & Science Health Promotion Conference, Colorado Springs, Colorado, 2011

Bowling Green Smoke-free Media Subcommittee, 2009-2010

Political Engagement Project, 2007-08

Faculty/Staff campaign member for Alumni Relations/Annual Giving 2007-08

CHHS Career Services Orientation, August 2006

United Way Ambassador for The Department of Public Health, 2005

KPHA, Student Chapter Faculty Co-Sponsor, 2010-Present

KPHA, Student Chapter Faculty Sponsor, 2005-09

Medical Center Health Expo / Represented College of Health and Human Services, 2006 & 2007

NCATE Coordinator for The Department of Public Health, 2005-06

"Heart off the Hill", Jody Richards talk with faculty and students, Coordinator, December, 2005

Bowling Green Smoking-Free Coalition, 2005-2014 State of Kentucky, FitKy Leadership Council, 2004-08

Department of Public Health, Health Education Undergraduate Coordinator / Responsible for Health Education scheduling and revision of programs / 2004-2006

Certificate Coordinator, Department of Public Health / 2004-06

Speaker for Annual Conference of South Central Kentucky High School & Junior High Counselors, December, 2004

Revision of Public Health Programs: 2004

Minor is Health Education

School Health Education Program

School Nurse Certification

Driver's Education Certification

WKU WellWorks: A comprehensive program designed to help corporations and industries meet the growing challenge of developing and maintaining employee's health / Design and Implementation, 2004-06

Wellness Councils of America's University Affiliate Program 2003-2008

Summer Series on Aging Planning Committee, UK, 2002-2003

WKU/Logan Aluminum Meeting on Services and Possible Opportunities, Oct 2003

Medical Center Health Expo / Represented WKU's Department of Public Health, Jan 2003, 04, 05

Nashville Open House / Represented WKU's Department of Public Health, Sept 2002-03

WKU Focus on Western, Sept 2002-07

STATE & COMMUNITY COMMITTEE MEMBER

Barren River Initiative to Get Healthy Together (BRIGHT) Coalition March 2015- Present

Barren River District Advisory Planning Board 2011- Present

Kentucky Worksite Wellness Advisory Board 2012-2014

Kentucky Wellness Collaborative 2013

Kentucky Worksite Wellness Task Force 2008-2013

Partnership for a Fit Kentucky 2005-present

C.H.E.S. Review Committee, 2002-present

UNIVERSITY COMMITTEE MEMBER

WKU Tobacco-Free Ad-hoc Committee to the President 2015-Present

WKU Research & Creative Activity Program Review Committee, (RCAP) 2012-2015

WKU Employee Wellness RFP Committee Member, 2011-2012

WKU Employee Wellness Search Committee, 2011

Well-U Advisory Committee, 2009-2011

WKU Equal Opportunity Advisory Committee 2006-2008

WKU ADA Accommodations Policy Review Ad hoc Committee 2008

WKU Wellness Advisory Committee 2005-2009

WKU Wellness Program Manager, 2005

COLLEGE COMMITTEE MEMBER

CHHS Graduation Committee 2018

CHHS Scholarship/Research Advancement Committee 2016- Present

CHHS Dean Internal Advisory Committee, 2007-Present

CHHS Homecoming Committee, 2006-2015

WKU Mobile Health and Wellness Unit Task Force, 2002-06

DEPARTMENT COMMITTEE MEMBER

EOHS Advisory Board, 2016-Present

Advising & Retention Committee, Committee Chair, 2011 – 2016

External Advising Board Planning Committee 2014 - 2016

MPH Curriculum Committee, 2009 - present

MPH Practical Experience committee, 2009 - present

MPH Website Committee, 2008

MPH Curriculum Review Ad hoc Committee, 2008

MPH Committee, 2001-present

Student Survey and Alumni Survey Ad hoc Committee, 2001-2008

School Health Committee, 2001-2008

Special Events Committee, 2001-2013

Dissertation Committee:

Kara Haughtigan, March 2015-2016

Beverly Mortimer, March 2014

Thesis Committees:

Mackenzie Pennington, 2017-2018

Savitri Grover, 2012-2013

Chair: Lakshminarayana Chekuri, 2006-2007

Amar Kanekar, 2006

Tina Hoover, 2006

Nelson Atehortua, 2006

Search Committees:

Public Health Environmental Professor, 2016 - 2017

Public Health Environmental Professor, 2013 - 2015

Public Health Biostatistics Professor, 2013 - 2014

WKU Wellness Director, 2011

Well-U Director, 2009

Public Health Department Head, 2006 - 07

Office Manager, Chair, 2007

Director of Institute of Rural Health & Development, 2006

Public Health Department Head, 2005-06

Public Health Professor, 2005 - 06

WKU Wellness Program Manager, 2005

Institute for Rural Health Coordinator, 2005

Public Health Director, 2004

HCA Assistant Professor, 2004 - 05

EHS Assistant Professor, 2004 - 05

Public Health Professor, 2004 – 05

SCHOLARLY ACTIVITIES

PUBLICATIONS

Books Published:

Watkins, C M. Lifestyle and Longevity: A Comparison of Seventh-day Adventist College Students and State College Students. *Lambert Academic Publishing, Koln, Germany.* 2009. 143p.

Articles Published:

Watkins, C., Macy, G., Golla, V., Lartey, G., Basham, J., (2017). The "Total Worker Health" Concept: A Case Study in a Rural Workplace. *Journal of Occupational and Environmental Medicine, (2017) doi:10.1097/JOM.0000000000001273*

Macy, G., Watkins, C., Lartey, G., & Golla, V. (2017). Depression screening, education, and treatment at the workplace: A pilot study utilizing the CDC Health Scorecard. *Journal of Workplace Behavioral Health, 32*(1), 3-13. doi: 10.1080/15555240.2017.1282826

Haughtigan, K., Main, E., Bragg-Underwood, T., & Watkins, C. (2017). Occupational Skin Disease Prevention: An Educational Intervention for Hairdresser Cosmetology Students. *Workplace Health & Safety*, 2165079917704447.

Macy, G., & Watkins, C. (2016). A Mixed Methods Analysis Of Workplace Health Promotion At Small, Rural Workplaces. *American Journal of Health Studies*, *31*(4).

Watkins, C. M., Macy, G., Lartey, G., & Golla, V. (2016). Kentucky worksite health promotion 2014 survey results. *International Journal of Workplace Health Management*, *9*(4), 398-410. doi.org/10.1108/IJWHM-05-2015-0024

Watkins, C., & English, G. (2015). Moving the worksite health promotion profession forward: is the time right for requiring standards? A Review of the Literature. *Health Promotion Practice.* 2015 Jan;16(1):20-7. doi: 10.1177/1524839914547759.

Nicholson, T. J., Duncan, D. F., White, J. B., Watkins, C. M. A Proposed New Direction for Drug Policy. *Drugs: Education, Prevention and Policy*. 2012; 19(4):303-308.

Mishra, S., Thind, H., Gokarakond, S., Lartey, G., Watkins, C., Chahal, M. (2011). Second-Hand Smoke On A University Campus In A Tobacco-State: Perceptions And Attitudes Of Faculty, Staff And Students. *Journal of International Health Education*. 2011 March; 4(1):21-27.

Watkins, C., White, J., Duncan, D., Wyant, D., Nicholson, T., Khubchandani, J., Lakshminarayana, C. (2010). Consumer-Directed Health Insurance vs. Managed Care: Analysis of Health Care Utilization and Expenditure Incurred by Employees in a Rural Area. *Research In The Sociology of Health Care.* 2010; 28:197-214. DOI: 10.1108/S0275-4959(2010)0000028011

Khubchandani, J., Nagy, C., Watkins, C. & Nagy, S. University Employees Work Related Stress. *American Journal of Health Studies*. 2009; 24(2):306-313.

Watkins, C., Lartey, G., Golla, V. & Khubchandani, J. Workers' Perceptions; Environmental Factors Influencing Obesity At the Workplace. *American Journal of Health Studies.* 2008; 23(2):74-80

Watkins, C., Wainright, C., (2005). Logan Aluminum, A Dynamic Approach To Worksite Health Promotion. *Wellness Council Of America (WELCOA).*

Articles Submitted For Publication:

State Reports Published:

Watkins, C., Lartey, G., Macy, G., Golla, V. (2014) Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard. A Kentucky State Report.

Lovely, T, Watkins, C. A Rapid Health Impact Assessment of the Proposed Worksite Wellness Tax Credit (HB 74). A Kentucky State Report. February, 2012.

PRESENTATIONS

Watkins, C. Achieving a Healthier Campus by Going Tobacco-Free, WKU Tobacco-free Taskforce Meeting, Sept 5, 2018.

Watkins, C., Macy, G. Workers' Compensation Educational Conference, Orlando, FL. The Shift Towards Total Worker Health, Workplace Training and Community Partnership. August 19 – 22, 2018.

Macy, G., Murphy, A., Ickes, M., Watkins, C., & Gates, B. "Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy." American College Health Association Annual Meeting, Washington, D.C., May 31- June 1, 2018.

Watkins, C., Macy, G. Logan Aluminum, Behavior Change. Logan Aluminum Management Meeting. March, 8, 2018.

Watkins, C., 3rd Annual Roadmap To A Healthy Workplace Summit, Barren River Initiative To Get Healthy Together (BRIGHT) Coalition Meeting. November 15, 2017.

Watkins, C., Macy, G. Lartey, G., Golla, V. (2016). Wellness Summit: Roadmap to a Health Workplace. Results & Recommendations of the 2014 Kentucky Worksite Assessment: Utilization of the CDC's Health ScoreCard. Bowling Green, Kentucky. April 27, 2016.

Watkins, C., (2016). CHHS Podium Presentations, A CHHS REACH Event. Results & Recommendations of the 2014 Kentucky Worksite Assessment: Utilization of the CDC's Health ScoreCard. April 20, 2016

Watkins, C., (2015). NIOSH, Total Worker Health (TWH) Affiliation Colloquium. Panel Discussion. Washington D.C.

Watkins, C., (2015). Bost Health Policy Forum. Panel Discussion on Worksite Wellness in Kentucky. Bowling Green, Kentucky.

Watkins, C., Macy, G. (2015). Wellness Summit: Roadmap to a Health Workplace. Planning for Success (Breakout Session). Bowling Green, Kentucky.

Watkins, C., Lartey, G., Macy, G., Golla, V., Lovely, T. (June 18, 2014) Center for Disease Control and Prevention (CDC). Results of the Kentucky Worksite Assessment: Utilization of the CDC's ScoreCard. Atlanta Ga.

Watkins, C., Lartey, G., Macy, G., Golla, V., Lovely, T. (April 16, 2014) Kentucky Public Health Association 2014 Conference. Results of the Kentucky Worksite Assessment: Utilization of the CDC's ScoreCard. Louisville KY.

Watkins, C., Lartey, G., Macy, G., Golla, V., Lovely, T. (April 11, 2014) Kentucky Department for Public Health Leadership. Results of the Kentucky Worksite Assessment: Utilization of the CDC's ScoreCard. Frankfort, KY.

Watkins, C., (October 7, 2013) Weight of the Nation. Panel on Obesity. Gary Ransdell Hall Auditorium.

Watkins, C., (August 20, 2013) Weight of the Nation Town Meeting. Worksite Wellness Segment. Bowling Green Junior High School.

Watkins, C., English, G. (February 27, 2013) Kentucky Wellness Conference. The Need for Standards and a Competent Workforce in Worksite Health Promotion. Lexington, KY.

Watkins, C., Lovely, T. (January 9, 2013) ASTHO Webinar Presentation: Kentucky Department for Public Health HIA of Proposed State Worksite Wellness Bill.

Lovely, T., Watkins, C. (February 8, 2012). Proposed Kentucky Worksite Wellness Tax Credit Review Findings: Impact of Childhood Obesity on Your Business. 4th Annual Kentucky Worksite Wellness Conference. Lexington, KY.

Watkins, C., Lovely, T. (April 4, 2012). HIA Findings Influence State Strategy to Address Childhood Obesity through a State Worksite Wellness Bill. National Health Impact Assessment Meeting, Washington D.C.

Watkins, C., Lovely, T. (August 19, 2011). A Rapid Health Impact Assessment of the Proposed Worksite Wellness Tax Credit (HB 74). Health Promotion Live, Webinar.

Watkins, C., Lovely, T. (August 18, 2011). A Rapid Health Impact Assessment of the Proposed Worksite Wellness Tax Credit (HB 74). Health Impact Training Workshop. Bowling Green Kentucky.

Azimipour, A., Watkins, C., (2010). Toothlessness in Kentucky: The Causes and the Remedies, Posters at the Capitol, Frankfort, Kentucky.

English, G., Watkins, C. (2010). Classroom Activities that Address Drug Use, Abuse and Addiction, The First International Conference on the Health Risk of Youth, Cancun, Mexico.

Watkins, C., (2008). Preparing Students to be Responsible Citizens, Engaging The Spirit Conference, WKU Campus.

Khubchandani, J., Nagy, C., Watkins, C. & Nagy, S. (2008). University Employees Work Related Stress, Kentucky Public Health Association Conference, Louisville KY.

Gilson, K., Boka, K., Watkins, C. (2008). Issues of Implementing a No-Smoking Policy in a Tobacco State: The Art of Diplomacy. Kentucky Public Health Association Conference, Louisville, KY.

Gilson, K., Boka, K., Watkins, C. (2008). Issues of Implementing a No-Smoking Policy in a Tobacco State: The Art of Diplomacy. Posters at the Capitol, Frankfort, KY.

Nagy, S., Watkins, C., Chauhan, S., Khubchandani, J., (2007). Fundamental Instructor's Training by American Red Cross in an Institutional Set UP, Kentucky Public Health Association Conference, Louisville, KY.

Diame, J., Nicholson, T., Watkins, C., (2007). Personal and Professional Health Behaviors of Public Health Educators, Kentucky Public Health Association Conference, Louisville, KY.

Nagy, S., Watkins, C., Khubchandani, J., Gokarakonda, S. (2007). HIV Awareness of Health Care Professionals ~ Yesterday and Today. Kentucky Public Health Association Conference, Louisville, KY.

Wyant, D., Jamode, S., Watkins, C., (2007). The Public Health Component in Health Care Administration Programs not based in Colleges of Public Health. The Annual Meeting of the Association of University Programs in Health Administration, Orlando, FL.

Rowland, C., Khubchandani, J., Watkins, C., (2007). Methodology of tapping workers Perceptions of Worksite Factors Influencing Physical Activity and Nutritional Habits. WKU 37th Annual Student Research Symposium.

Boka, K., Watkins, C., (2007). An Internship that Improves the Lives of Employees at Western Kentucky University. Kentucky Public Health Association Conference, Louisville, KY

Collins, C., Watkins, C., (2007). A Win-Win Situation: Worksite Health Promotion Project Provides Community Student Engagement While Filling Local Business Needs. Kentucky Public Health Association Conference, Louisville, KY.

Rowland, C., Khubchandani, J., Watkins, C., (2007). Methodology of tapping workers Perceptions of Worksite Factors Influencing Physical Activity and Nutritional Habits. Kentucky Public Health Association Conference, Louisville, KY.

Watkins, C., Khubchandani, J., Gokarakonda, S., Patel, P., (2007). HIV Awareness of Health Care Professionals in USA as compared to HIV Awareness of Health Professionals in India; Kentucky Public Health Association Conference, Louisville, KY

Boka, K., Watkins, C., (2007). An Internship that Improves the Lives of Employees at Western Kentucky University. WKU Students Present Research At Posters-At-The-Capitol, Frankfort, KY.

Gilson, K., Boka, K., Watkins, C. (2007). Issues of Implementing a No-Smoking Policy in a Tobacco State: The Art of Diplomacy. American Public Health Association Conference, Washington D.C.

Watkins, C., (2006). Best Practices for Student Success, The Challenges and Solutions to Engaging Students at a distance. WKU Engaging the Spirit.

Wyant, DK , Jamode S, and Watkins C. (2006). Approaches to Including Required Epidemiology in Health Management Curriculum The Annual Meeting of the Association of University Programs in Health Administration, (Poster) Seattle, Washington.

Collins, C., Watkins, C., (2006). A Win-Win Situation: Worksite Health Promotion Project Provides Community Student Engagement While Filling Local Business Needs. American Public Health Association Conference, Boston, MA.

Watkins, C., (2005). Enhancing Student Learning. WKU Engaging the Spirit

Watkins, C., *(2005).* Consumer-directed health insurance: A comparative analysis of three organizations and the potential effects on health care costs at the workplace. APHA Conference, Philadelphia, PA.

Watkins, C., *(2005).* Consumer-directed health insurance: A two-year review: Are the savings real? APHA Conference, Philadelphia, PA.

Watkins, C., *(2005).* Consumer-directed health insurance: A two-year review: Are the savings real? R.R. Donnelley, Glasgow, KY.

Watkins, C., *(2004).* Obesity Strategies In The American Workplace. APHA Conference, Washington, D.C.

Watkins, C., (2004). Obesity Strategies In The American Workplace. FitKy Leadership Council, Frankfort, KY.

Watkins, C., (2004). Worksite Health Promotion & Community Service Learning; The Perfect Partners. National Wellness Conference, Stevens Point, WI.

Watkins, C., (2003). Worksite Health Promotion & Community Service Learning; The Perfect Partners. APHA Conference, San Francisco, California.

Watkins, C., (2003). Worksite Health Promotion & Community Service Learning; The Perfect Partners. Community Service Learning Workshop, University of Kentucky.

Watkins, C., (2003). Worksite Health Promotion & Community Service Learning; The Perfect Partners. Kentucky Public Health Association Conference, Louisville, KY.

Dunn, D., Watkins, C., (1997). Wellness Programs In Small Industries. American Public Health Association Convention, New York, NY.

Contributions to Presentations:

White, J., Lovely, T., Watkins, C., (2005). "Affordable Healthcare: Cost-Saving Measures" Options to Lower your Costs, Partners for a Healthy Louisville and The Uninsured Coalition Conference, Louisville, KY.

RESEARCH IN PROGRESS

Tobacco-Free WKU Campus (Survey on attitudes of tobacco for faculty, staff) (Survey on marketing tobacco on campus for students)

GRANTS

RCAP Grant. Impact of a Wellness Program aimed at Middle School Foodservice Employees. Principal Investigator, Dr. Ann Embry. Co-investigator, Dr. Cecilia Watkins. ($15,518). Funded, March 2018.

American Cancer Society Tobacco-Free Generation Campus Initiative Grant. Becoming a Tobacco-Free Campus in Kentucky. Principal Investigator, Dr. Cecilia Watkins, Co PI: Dr. Gretchen Macy. ($20,000.00) Applied December, 2017. Funded, April 2018

Center for Environmental and Workplace Health, College of Health & Human Services. Principal Investigator, Dr. Ritchie Taylor, Co PIs: Dr. Cecilia Watkins, Dr. Jooyeon Hwang,

Dr. Gretchen Macy, and Jacqueline Basham, MPH. ($269,510) Applied April, 2017. Funded. June 2017.

NIOSH Support for Conferences and Scientific Meetings (R13). Roadmap to a Healthier Workplace: Total Worker Health and Taking the High Road. Principal Investigator. August 9, 2016. ($30,000). Not funded.

CARERC Pilot Studies Grant: Principal Investigator. Total Worker Health in Rural Workplaces: Challenges of Implementation and Follow-up. Awarded November 16, 2016. ($12,000)

Healthier Workforce Pilot Grant: The Healthier Workforce Center for Excellence, University of Iowa. Principal Investigator. ($30,000.00) Reapplied upon request. April 22, 2016. Not Funded.

Healthier Workforce Pilot Grant: The Healthier Workforce Center for Excellence, University of Iowa. Principal Investigator. ($30,000.00) Applied November 22, 2015. Not Funded.

Kentucky Worksite Wellness Assessment Grant: Partner with the Kentucky Department for Public Health. Principal Investigator. Funded ($21,375.00) 2013.

Kentucky Department for Public Health: Public Prevention Health Fund: Community Transformation Grant. CDC ($603,437) 5 years. 2011 (Contractor) Not Funded

ASTHO Grant: Partnership for a Fit KY. Health Impact Assessments: Building States' Capacity to Address Childhood Obesity. Funded ($15,000) 2010. (Consultant)

CDC Grant: Barren River District Health Department. Translating Research to Protect Health through Health Promotion, Prevention, and Preparedness (R18). Not Funded ($425,000) 2009

NORA II Grant: Kentucky Workers' Perception; Environmental Factors Influencing Obesity at the workplace. Principal Investigator. Not funded ($8,000) 2008

PIE Grant: Faculty Workshop: Funded ($200) 2006

Western Kentucky University Junior Faculty Grant: Worker's Perception of Environmental Factors Influencing Obesity. Principal Investigator. Funded ($5000) 2005/2006

CHHS Faculty Scholarship Grant: Worker's Perception of Environmental Factors Influencing Obesity. Principal Investigator. Funded ($1,500) 2005/2006

PTA HIV/STI Train the Trainer: Kentucky Department of Education. Funded ($22,360) 2004/2005

NIH Grant (R01): Obesity at the Worksite, Principal Investigator. Not Funded ($2.3 MM)

2003-2004

White Paper: 1) Ergonomic/ Fitness Mobile Unit 2) Childhood Obesity Center. Principal Investigator. Not funded. 2003

Health Professions Faculty Curriculum Development Grant: Relationship of the study to the educational goals of the health education program: Service learning, on hands experience for students, relationship with community for university. Principal Investigator. Funded ($2000) 2002

Action Agenda Grant Proposal endorsed by Department Head. Not Funded. ($2000) 2001

ADDITIONAL PROFESSIONAL ACTIVITIES

Tobacco-Free Generation Campus Initiative Grantee Meeting, Atlanta GA, October 10 – 12, 2018

Reviewer for Health Promotion Practice - "Impact of a University Employer Wellness Program on Sequential Annual Biometric Screenings" for Health Promotion Practice. August 2018.

Reviewer for Health Promotion Practice – ScholarOne Manuscripts. Conducting Community Health Needs Assessments in Rural Communities: Lessons Learned. June 2014.

Reviewer for Health Promotion Practice – ScholarOne Manuscripts. Indian Student Perspectives on Obesity and School-Based Obesity Prevention: A qualitative Examination. May 2013.

Reviewer for Jossey-Bass Publishing, Proposal for textbook, Workplace Health Promotion: From Theory to Practice, Author, Carl I. Fertman, January, 2013.

Developed Graduate Worksite Health Promotion Certificate Program, 2012

Western Kentucky University/Department of Public Health. Worksite Health Promotion Certificate Marketing. 22st Annual Art and Science Health Promotion Conference, San Diego, California, 2012

Making Connections Session, The necessity for a national governing body that oversees the national network of worksite health promotion. 22st Annual Art and Science Health Promotion Conference, San Diego, California, 2012

Kentucky Public Health Association Conference, Louisville, KY, 2012. Faculty Sponsor (1st Place KPHA Student Chapter)

Reviewer for Jossey-Bass Publisher. Proposal for a textbook, the fourth edition of Health Promotion in the Workplace, by Michael O'Donnell. January, 2012

Developed Graduate Worksite Health Promotion Course for Department of Public Health, 2011

Western Kentucky University/Department of Public Health. Worksite Health Promotion Certificate Marketing. 21st Annual Art and Science Health Promotion Conference, Colorado Springs, Colorado, 2011

Making Connections Session. Standards in Worksite Health Profession. 21st Annual Art and Science Health Promotion Conference, Colorado Springs, Colorado, 2011

Kentucky Public Health Association Conference, Louisville, KY, 2011 Faculty Sponsor (1st Place KPHA Student Chapter)

Developed Worksite Health Promotion Certificate WKU, Department of Public Health, 2010

Reviewer for American Journal of College Health, 2010

Kentucky Public Health Association Conference, Louisville, KY, 2010 Faculty Sponsor (1st Place KPHA Student Chapter)

Kentucky Worksite Wellness Conference, Lexington, February, 2010

Posters at the Capitol, Frankfort, Kentucky, January, 2010

The First International Conference on the Health Risk of Youth, Cancun, Mexico, January, 2010

Developed and Implemented Worksite Health Promotion Minor, WKU Department of Public Health, 2009

Review for Jones & Bartlett Text, Introduction to Health Behavior Theory, 2009

Technology for Teaching – Preparing for a QM Course Review Workshop, 2009

Faculty Colloquium: Online Teaching and Learning Workshop, DELO, 2009

FaCET: When Good Intentions Go Bad Workshop, 2009

Kentucky Healthy Communities Summit, Lexington, KY, 2009

Kentucky Diabetes Prevention and Control Workshop, Bowling Green, KY, 2009

FaCET Summer Conference '09 Conference

MPH Student Fall Orientation, 2009

MPH Faculty Retreat, 2009

Engaging The Spirit Conference, 2009

Admissions Counselor Workshop, Presented Worksite Health Promotion Minor, 2009

Shaping Kentucky's Communities: Policies, Programs and People to Reduce Obesity Conference, Lexington, KY, 2009

Kentucky Public Health Association Conference, Louisville, KY, 2009 (1st Place KPHA Student Chapter)

Center for Clinical and Translational Science Conference, Lexington, KY 2009

Engaging The Spirit Conference, 2008

Kentucky Public Health Association Conference, Louisville, KY, 2008

Posters at the Capitol, Frankfort, KY, 2008

Political Engagement Project, 2007-2008

Reviewer for American Journal of College Health, 2008

Reviewer for American Journal of College Health, 2008

Engaging The Spirit Conference, 2007

American Public Health Association Conference, Washington, D.C., 2007

Kentucky Public Health Association Conference, Louisville, KY, 2007 (2nd Place KPHA Student Chapter)

Partnership for a Fit Kentucky, Bowling Green Region, 2006

Engaging The Spirit Conference, 2006

Kentucky Higher Education Compliance Assistance Symposium, 2006

American Public Health Association Conference, Boston, MA 2006

Kentucky Public Health Association Conference, Louisville, KY, 2006

Engaging The Spirit Conference, 2005

American Public Health Association Conference, Philadelphia, PA, 2005

Kentucky Public Health Association Conference, Louisville, KY, 2005

New Course Proposal and Design, Introduction to Ergonomics, 2003-2004

American Public Health Association Conference, Washington, D.C., 2004

Kentucky Public Health Association Conference, Louisville, KY, 2004

New Course Proposal and Design, Worksite Health Promotion, Fall 2003

Reviewer for American Association for Health Education 2004 National Conference, June 2003

Designed Correspondence Course PH 381 Community Health, 2003

American Public Health Association Conference, San Francisco, CA, 2003

Kentucky Public Health Association Conference, Louisville, KY, 2003

Designed Correspondence Course PH 165 Drug Abuse, 2002

Designed Correspondence Course PH 261 Foundations of Health Education, 2002

PH 467/G Supplement Design, August 2002

Logan Aluminum / Survey on Employee Satisfaction with Cafeteria October/November 2002

Wellness Council of Tennessee Committee / Well City Award for Chattanooga, TN. 1997

PROFESSIONAL MEMBERSHIPS

Total Worker Health Affiliates Program, 2015-Present

Wellness Councils of America, University Affiliate Program, 2003-Present

Kentucky Public Health Association 2002-Present

American Public Health Association 2002 –Present

Health Promotion Advocates 2010-Present

PROFESSIONAL CERTIFICATION

C.H.E.S., 2000-Present

ADDITIONAL TRAINING

Visual Analytics Workshop, WKU, October 22, 2018

Working with the Media Workshop, Foundation for a Healthy KY. August 16, 2018.

Grant Administration at WKU, Sponsored Programs, July 26, 2017

Internal Grants at WKU Seminar, Sponsored Programs, Sept 5, 2012

Blackboard 9 Upgrade Training, June 24, 2010

Tegrity Blackboard Training/DELO, 2010

Research Compliance: Ethics Training Course, Self-Study Program, 2009

Collaborative Institutional Training Initiative, Self-Study Program, 2009

Basic/Refresher Course – Human Subjects Research Curriculum, Self-Study Program, 2009

Tegrity Blackboard Training/DELO, 2009

Mental Health & Aging Coalition Conference, May, 2008

Undergraduate Advising Training, 2008

ICAP Training, February, 2007

WKU Blackboard New Faculty Tools Workshop, January, 2007

Degree Audit Workshop, October 2006

Kentucky Higher Education Compliance Assistance Symposium, WKU, August 2006

Blackboard Workshop on Blackboard Assessments, 2006

Public Health Core Curricula Workshop, CPE, Frankfort, August 2006

Workshop: Breaking through the barriers to writing proposals, by Dr. Robert Lucas, 2005

Grant Writing Seminar, NIOSH Education and Research Center, University of Cincinnati, 2005

Wellsource Workshop, Portland, Oregon, July 19-20, 2004

Obesity in the Built Environment, Washington, D.C., May, 2004

Ergonomic Evaluation Workshop, March 24-27, 2004

CHHS Grant Workshop, October 2003

Cultural Communication Issues in the Classroom, Summer Camp 2003

Summer Series on Aging, July 2002

Community Partner Workshop, April 2002

Bio-terrorism, March 2002

Domestic Violence, January 2002

Web Building, October & November 2001

Grant Writing, October 2001

Dealing With Biological/Chemical Terrorism, October 2001

Cultural Competency for Health Care Providers, October 2001

Power Communication, September 2001

STUDENT ENGAGEMENT ACTIVITIES

KPHA Conference / (30) students, Covington, KY, April, 2018, *Awarded Best Student Chapter in the state of Kentucky (9Years in a row)*

PH 402 Worksite Health Promotion & Industrial Hygiene / (20) students / Fieldtrip to Logan Aluminum to view health promotion programs, February 2018

KPHA Conference / (28) students, Owensboro, KY, April, 2017

PH 502 & PH 402 Worksite Health Promotion & Industrial Hygiene / (20) students / Fieldtrip to Logan Aluminum to view health promotion programs, February 2017

KPHA Conference / (30) students, Owensboro, KY, April, 2016, *Awarded Best Student Chapter in the state of Kentucky (8Years in a row)*

PH 502 & PH 402 Worksite Health Promotion / (22) students / Fieldtrip to Logan Aluminum to view health promotion programs, February 2016

KPHA Conference / (30) students, Owensboro, KY, April, 2015, *Awarded Best Student Chapter in the state of Kentucky (7Years in a row)*

PH 502 & PH 402 Worksite Health Promotion / (19) students / Fieldtrip to Logan Aluminum to view health promotion programs, February 2015

KPHA Conference / (30) students, Louisville KY, April, 2014, *Awarded Best Student Chapter in the state of Kentucky (6 Years in a row)*

PH 502 & PH 402 Worksite Health Promotion / (17) students / Fieldtrip to Logan Aluminum to view health promotion programs, February 2014

KPHA Conference / (30) students, Louisville KY, April, 2013, *Awarded Best Student Chapter in the state of Kentucky (5 Years in a row)*

PH 502 & PH 402 Worksite Health Promotion / (20) students / Fieldtrip to Logan Aluminum to view health promotion programs, February 2013

22 Annual Art & Science of Health Promotion Conference, 2012 / (2) students, San Diego, California, *Awarded internships to attend conference*

KPHA Conference / (30) students, Louisville KY, April, 2012, *Awarded Best Student Chapter in the state of Kentucky (4 years in a row).*

PH 402 Worksite Health Promotion / (14) students / Fieldtrip to Logan Aluminum to view health promotion programs, March, 2012

KPHA Conference / (33) students, Louisville, KY, March, 2011, *Awarded Best Student Chapter in the state of Kentucky (3 years in a row).*

PH 402 Worksite Health Promotion / (15) students / Fieldtrip to Logan Aluminum to view health promotion programs, February, 2011

KPHA Conference / (27) students, Louisville, KY, April, 2010, *Awarded Best Student Chapter in the state of Kentucky (2 years in a row).*

Posters at the Capitol / (1) student, Frankfort, KY, February, 2010

PH 402 Worksite Health Promotion / (17) students / Fieldtrip to Logan Aluminum to view health promotion programs, March, 2010

KPHA Conference / (17) students, Louisville, KY, March, 2009, *Awarded Best Student Chapter in the state of Kentucky*

PH 402 Worksite Health Promotion / (20) students / Fieldtrip to Logan Aluminum to view health promotion programs, February, 2009

Using Our Hearts and Minds to Prevent Heart Disease and Stroke in Kentucky; A Cardiovascular forum / PH 585, International Health (10) students & PH 484, Community Organization (12) students presented posters and helped to facilitate forum. CK Center, April, 2008

Posters at the Capitol, (2) students, Frankfort, KY, 2008

KPHA Conference / (15) students, Louisville, KY, April, 2008

PH 402 Worksite Health Promotion / (18) students / Fieldtrip to Logan Aluminum to view health promotion programs, 2008

KPHA Conference / (16) students, Louisville, KY, April, 2007

Posters at the Capitol, (1) student, Frankfort, KY, February, 2007

PH 484 Community Organization Class / (14) students / Trip to Frankfort to view the legislative in process, February, 2007

PH 484 Community Organization Class / (14) students / Designed and Implemented Smoke-free Symposium for community and campus, Fall, 2007

PH 548 Community Organization Class / (16) students / In conjunction with the Political Engagement Project and The Great Conversation, Designed and conducted a Campus Forum for a Smoke-free Community, Spring, 2007

PH 402 Worksite Health Promotion / (13) students / Fieldtrip to Logan Aluminum to view health promotion programs, March, 2007

KPHA Conference / (12) students, Louisville, KY, April, 2006

Mammoth Cave Fieldtrip / (13) students /Fieldtrip for PH 484 Community Organization Class to view how surrounding communities work with federal agency for the betterment of all, 2006-07

PH 548 Community Organization Class / (13) students / Trip to Frankfort to view the legislative process 2006

KPHA (10) students attended HPV Vaccine Press Release with Lieu Gov Pence, 2006

PH 402 Worksite Health Promotion / (18) students / Fieldtrip to Logan Aluminum to view health promotion programs, March, 2005

PH 484 Community Organization Class / (17) students / Trip to Frankfort to view the legislative process, February, 2005

KPHA Conference / (9) students, Louisville, KY, April, 2005

PH 402 Worksite Health Promotion / (15) students / Trip to Logan Aluminum to view health promotion programs, March, 2004

AWARDS & HONORS

The Sara C. Stice Health Education Award, 2011 State Award

Professor of The Year, SGA December, 2008 University Award

Nominated for CHHS Faculty Service Award, 2008

Nominated for CHHS Faculty Advising Award, 2007

The Western Scholar Article, Fall 2006

Acknowledgement, Khubchandani, J. (2006). *A Comprehensive Review of Foreign Exams*.

WKU's Doers & Deeds of Excellence, twice recognized in 2005

WKU's Doers & Deeds of Academic Excellence, 2003-2004

Ergonomic Achievement, DuPont, 1997

Achievement of Appreciation, Florida International University, 1995

VOLUNTEER ACTIVITIES

2014 Speaker at Breast Cancer Event, Barre Co. Bowling Green, KY

2012 Relay for Life

2012/13 WKU United Way

2011 Relay for Life

2011/12 WKU United Way

2011 Relay for Life

2005/6 WKU United Way

2001-12 Trash-masters Cleanup Barren River Lake

2003-07 Bowling Green Running Club

2000 Presidential Campaign Volunteer

1996 Olympics (Accreditation Officer)

TEACHING ASSIGNMENTS

WKU, Ongoing

Correspondence Course PH 165 Drug Abuse, (Designed & Teach)

Correspondence Course PH 381 Community Health, (Designed & Teach)

Correspondence Course PH 261 Foundations of Health Education, (Designed & Taught) 2003-11

WKU On Demand PH 502 Health Promotion in the Workplace. (Designed & Teach) 2014-Present

WKU On Demand Professional Workplace Health Promotion Certificate (Design & Teach) 2014-Present

WKU, Fall '18

PH 580 Introduction to Public Health (Web)

PH 548 Community Organization (Web)

Center of Environmental & Workplace Health (Applied Research)

WKU, Spring '18

PH 402 Worksite Health Promotion

PH 484 Community Organization/ Health Education

Center of Environmental & Workplace Health (Applied Research)

WKU, Fall '17

PH 580 Introduction to Public Health (Web)

PH 548 Community Organization

PH 502 Health Promotion In The Workplace

Center of Environmental & Workplace Health (Applied Research)

WKU, Summer '17

PH 165 Drug Abuse (Web)

PH 546 Internship

WKU, Spring '17

PH 402 Worksite Health Promotion

PH 484 Community Organization/Health Education

PH 502 Workplace Health Promotion

Research

WKU, Winter'17

PH 165 Drug Abuse (Web)

WKU, Fall '16

PH 100 Personal Health (Web)

PH 580 Introduction to Public Health

PH 548 Community Organization

Research

WKU, Summer '16

PH 165 Drug Abuse (Web) (2)

WKU, Spring '16

PH 402 Worksite Health Promotion

PH 484 Community Organization/Health Education

PH 502 Workplace Health Promotion

Research

WKU, Winter'16

PH 165 Drug Abuse (Web)

WKU, Fall '15

PH 100 Personal Health (Web)

PH 580 Introduction to Public Health

PH 548 Community Organization

Research

WKU, Summer'15

PH 165 Drug Abuse (Web) (2)

WKU, Spring '15

PH 402 Worksite Health Promotion

PH 484 Community Organization/Health Education

PH 502 Workplace Health Promotion

Research

WKU, Winter'15

PH 165 Drug Abuse (Web)

WKU, Fall'14

PH 100 Personal Health (Web)

PH 580 Introduction to Public Health

PH 548 Community Organization

Research

WKU, Summer'14

PH 165 Drug Abuse (Web) (2)

WKU, Spring '14

PH 402 Worksite Health Promotion

PH 484 Community Organization/Health Education

PH 502 Workplace Health Promotion

Research

WKU, Winter'14

PH 165 Drug Abuse (Web)

WKU, Fall'13

PH 100 Personal Health (Web)

PH 580 Introduction to Public Health

PH 548 Community Organization

Research

WKU, Summer'13

PH 165 Drug Abuse (Web) (2)

WKU, Spring '13

PH 402 Worksite Health Promotion

PH 484 Community Organization/Health Education

PH 502 Workplace Health Promotion

Research

WKU, Winter'13

PH 165 Drug Abuse (Web)

WKU, Fall'12

PH 100 Personal Health (Web)

PH 456 Independent Study (Request by Undergrad coordinator)

PH 548 Community Organization

Research

WKU, Summer'12

PH 165 Drug Abuse (Web) (3)

WKU, Spring'12

PH 484 Community Organization

PH 402 Worksite Health Promotion (Web)

PH 548 Community Organization

Research

WKU, Winter'12

PH 165 Drug Abuse (Web)

WKU, Fall'11

PH 100 Personal Health TA

PH 530 Graduate Worksite Health Promotion

PH 548 Community Organization

PH 580 Introduction to Public Health

WKU, Summer'11

PH 165 Drug Abuse (Web)

PH 261 Foundations of Health Education (Web)

WKU, Spring '11

PH 484 Community Organization

PH 402/G Worksite Health Promotion (Web)

PH 548 Community Organization

PH 585 International Health (Web)

WKU, Winter'11

PH 165 Drug Abuse (Web)

WKU, Fall'10

PH 100 Personal Health / Web (2 courses)

PH 548 Community Organization

Research

WKU, Summer '10

PH 165 Drug Abuse (Web) (2 courses)

PH 490 Internship

WKU, Spring '10

PH 100 Personal Health/Web

PH 585 International Health

PH 484 Community Organization

PH 402/G Worksite Health Promotion/ Web (New Design)

PH 530 Independent Study (Requested by MPH Director to teach for 3 students)

PH 546 Independent Study (Requested by Undergrad Coordinator to teach for 3 students)

WKU, Winter'10

PH 165 Drug Abuse (Web)

WKU, Fall'09

PH 100 Personal Health / Web (2 courses)

PH 580 Introduction to Public Health / Web

PH 548 Community Organization/Web (New Design)

WKU, Summer '09

PH 165 Drug Abuse (Web) (2 courses)

WKU, Spring '09

PH 100 Personal Health

PH 585 International Health

PH 484 Community Organization

PH 402/G Worksite Health Promotion

WKU, Winter'09

PH 165 Drug Abuse (Web)

WKU, Fall'08

PH 100 Personal Health / Web (New Design)

PH 580 Introduction to Public Health / Web (New Design)

PH 580 Introduction to Public Health

PH 548 Community Organization

WKU, Summer '08

PH 165 Drug Abuse (Web) (2 courses)

WKU, Spring '08

PH 585 International Health

PH 484 Community Organization

PH 402/G Worksite Health Promotion

WKU, Winter '08

PH 165 Drug Abuse (Web)

WKU, Fall '07

PH 580 History and Philosophy of Public Health

PH 548 Community Organization

PH 261 Foundations of Health Education

WKU, Summer '07

PH 165 Drug Abuse (Web) (2 courses)

WKU, Spring, '07

PH 585 International Health (New Course)

PH 484 Community Organization

PH 402/G Worksite Health Promotion

Research

WKU, Fall '06

PH 580 History and Philosophy of Public Health

PH 548 Community Organization

Release time (Obesity/ Perceptions in the Workplace) & (Consumer Directed Health Plans)

WKU, Summer '06

PH 165 Drug Abuse (Web)

WKU, Spring '06

PH 484 Community Organization

PH 402/G Worksite Health Promotion

PH 381 Community Health

PH 548 Community Organization

PH 261 Foundations of Health Education

WKU, Fall '05

PH 261 Foundations of Health Education

PH 580 History and Philosophy of Public Health

PH 580 History and Philosophy of Public Health / Web

WKU, Spring '05

PH 467/G Drug Education

PH 402/G Worksite Health Promotion

PH 484 Community Organization

Release time (WellWorks / Research: Consumer-driven Insurance)

WKU, Fall '04

PH 467/G Drug Education

PH 402/G Worksite Health Promotion

PH 381, Community Health / Release time (HIV Grant)

WKU, Summer '04

PH 467/G Drug Education

PH 381, Community Health

WKU, Spring '04

PH 467/G Drug Education

PH 402/G Worksite Health Promotion

PH 381, Community Health

PH 261, Foundations of Health Education

WKU, Fall '03

PH 467/G Drug Education

PH 402/G Worksite Health Promotion

PH 381, Community Health

PH 261, Foundations of Health Education

WKU, Summer '03

PH 467/G Drug Education

PH 381, Community Health

WKU, Spring '03

PH 467/G Drug Education

PH 461/G School Health Education

PH 381, Community Health

PH 261, Foundations of Health Education

WKU, Fall '02

PH 467/G Drug Education

PH 461/G School Health Education

PH 381, Community Health

PH 261, Foundations of Health Education

PH 100 Personal Health

WKU, Summer '02

PH 467/G Drug Education

WKU, Spring '02

PH 467/G Drug Education

PH 381 Community Health (2 courses)

PH 165 Drug Abuse

PH 100 Personal Health

WKU, Fall '01

PH 381, Community Health (2 courses)

PH 165, Drug Abuse

PH 100, Personal Health (2 courses)

WKU, Spring '01

PH 100, Personal Health (2 courses)

University of Tennessee, Spring 2000

Health 110, Public Health

Health 225, Drug Abuse

University of Tennessee, Fall 1999

Health 200, Human Sexuality

Health 230, CPR

Florida International University, Fall 1994

Freshman Experience Course

**GRETCHEN BROWN MACY, EdD, MS, MPH, CSCS, CEAS**

Phone: 270-745-5870 (work)

Email: gretchen.macy@wku.edu

EDUCATION

Doctor of Education in Kinesiology and Health Promotion

August 2012

College of Education, University of Kentucky, Lexington, KY

Dissertation: "The Evaluation of the Life Is Cool Program"

GPA 4.0

Masters in Public Health

December 2011

Department of Public Health, Western Kentucky University, Bowling Green, KY

Area of Concentration: Health Education

Capstone: "Accessing Barriers to Physician Referral Rates to Diabetes Education in Bowling Green, KY"

GPA 4.0

Masters of Science in Exercise Physiology

May 2003

University of Louisville, Louisville, KY

GPA 4.0

Bachelor of Arts in Exercise Science

Transylvania University, Lexington, KY

Major: Exercise Science

Honors in Exercise Science

Graduated magna cum laude

TEACHING EXPERIENCE

Western Kentucky University (2018-Present) Bowling Green, KY

Associate Professor, Department of Public Health

Western Kentucky University (2012-2017) Bowling Green, KY

Assistant Professor, Department of Public Health

Bluegrass Community & Technical College (2005-2008) Lexington, KY

Adjunct Faculty, Department of Natural Sciences

PROFESSIONAL EXPERIENCE

Western Kentucky University (2011) Bowling Green, KY

Guest Lecturer, Department of Public Health

Western Kentucky University (2010-2011) Bowling Green, KY

Graduate Assistant, Department of Public Health

Barren River District Health Department (2011) Bowling Green, KY

Health Information Intern

Richmond Place Assisted Living (2004-2005) Lexington, KY

Exercise Physiologist

Body Structure Medical Fitness Facility (2004) Lexington, KY

Exercise Physiologist

Jewish Hospital Geron Lifestyle Center (2003) Louisville, KY

Exercise Physiologist/ Cardiac Rehabilitation Intern

AWARDS/CERTIFICATIONS

Affiliate Member of the Center for Applied Science in Health and Aging, 2018-

Completed QPR Workshop for Suicide Prevention 2018

*Volunteers in Action* Community Service Award (KPHA)

2018

Certified Ergonomics Assessment Specialist (CEAS)

2018

Completed Green Dot Training for Sexual Harassment Awareness, 2017

College of Health and Human Services Graduate Research

Funding Award, *Western Kentucky University*

2010-2011

Sarah Guerin Graduate Scholarship, University of Kentucky

2008-2009

National Strength and Conditioning Association Certified Strength and Conditioning Specialist
2002-Present

NASPE Student Major of the Year

1997

GRANTS/CONTRACTS

2018

American Cancer Society. C. Watkins & G. Macy. Becoming a Tobacco-Free Campus in Kentucky. Co-Principal Investigator. Funded ($20,000).

2017

City of Goodlettsville, TN. R. Taylor, J. Basham, & G. Macy. Watershed Health Visual Assessment in the City of Goodlettsville, TN. Co-Investigator. Funded ($9,994).

WKU College of Health and Human Services RFP. Center for Environmental and Workplace Health. R. Taylor, C. Watkins, G. Macy, J. Hwang, & J. Basham. Core Faculty. Funded ($269,510)

College of Health and Human Services Quick Turnaround Grant. G. Macy, C. Watkins & M. Ickes. Assessing attitudes, perceptions, and behaviors related to tobacco use and policy among faculty, staff and students. Principal Investigator. Funded ($1,500).

2016

NIOSH Support for Conferences and Scientific Meetings (R13). C Watkins, G Macy, J Hwang, J Basham. Roadmap to a Healthy Workplace Summit. Submitted August 11, 2016. Not Awarded.

Central Appalachian Regional Education and Research Center Grant. C Watkins, V Golla, G Macy, G Lartey. Integration of Health Promotion and Health Protection in Workplaces Located in a Rural State: Challenges and Implementation of Interventions. Co-investigator. Funded ($12,000).

Healthy Workforce Center of Excellence Pilot Grant (2). C Watkins, V Golla, G Lartey, G Macy, W Sanderson. Integration of Health Promotion and Health Protection in Workplaces Located in a Rural State: Challenges and Implementation of Interventions. Not Awarded.

Western Kentucky University RCAP Grant. G Macy & C Watkins, Barriers of Implementation of Comprehensive Worksite Health Promotion Programs Among Rural Small Businesses. Not Awarded.

2015

Healthy Workforce Center of Excellence Pilot Grant (1). C Watkins, V Golla, G Lartey, G Macy, W Sanderson. Integration of Health Promotion and Health Protection in Workplaces Located in a Rural State: Challenges and Implementation of Interventions. Not Awarded.

Healthy Communities Grant. B Siddens, S Seshadri, L Houchin, J Golden, G Macy. BRIGHT: 5-2-1-0 Project. Not Awarded.

2014

College of Health and Human Services Faculty Research Scholarship, G Macy, S Seshadri, A Michimi, J Golden, & G Lartey. BRIGHT: Barren River Initiative to Get Healthy Together. Principal Investigator. Funded ($3,307).

2013

Kentucky Worksite Wellness Assessment Grant: (CDC Cooperative Agreement 2B01DP009022-13) C Watkins, G Lartey, V Golla, & G Macy. Partner with the Kentucky Department for Public Health. Co-investigator. Funded ($21,375.00).

2012

Western Kentucky University RCAP Grant. C Watkins, G Lartey, V Golla, & G Macy. A Pilot Study: Stress Management Assessment and Intervention for First Responders in Kentucky. Not awarded.

2011

Kentucky Organ Donor Affiliates Grant. J Bonaguro, C Nagy, G English, G Lartey & G Macy. Evaluation of the Life Is Cool Project. Co-investigator. Funded ($24,309).

PUBLISHED MANUSCRIPTS (* denotes student author)

C. Watkins, G. Macy, V. Golla, G. Lartey, & J. Basham (2018). "The Total Worker Health Concept: A Case Study in a Rural Workplace." *Journal of Occupational and Environmental Medicine:* 60(5): 387-391. 10.1097/JOM.0000000000001273.

G. Macy & C. Watkins (2017). "A Mixed Methods Analysis of Workplace Health Promotion at Small, Rural Workplaces." *American Journal of Health Studies:* 31(4): 232-242.

G. Macy, C. Watkins, G. Lartey & V. Golla (2017). "Depression screening, education, and treatment at the workplace: A pilot study utilizing the CDC Health Scorecard." *International Journal of Workplace Behavioral Health:* 32(1): 3-13: DOI: 10.1080/15555240.2017.1282826.

G. Macy, M. Noland, G. Lartey, C. Nagy, J. Bonaguro & G. English (2016). "Using the Theory of Planned Behavior to Predict Students' Intentions to Register as Organ Donors in the Future" *Transplant Journal of Australasia: 25*(3): 18-21.

C. Watkins, G. Macy, G. Lartey & V. Golla (2016). "Results of the CDC Health Scorecard Statewide Assessment." *International Journal of Workplace Health Management:* 9(4): 398-410. DOI: 10.1108/IJWHM.-05-2015-0024.

G. Macy, M. Noland, G. English, J. Bonaguro, C. Nagy & G. Lartey (2015). "Life Is Cool: Introduction to Organ Donation and Transplantation." *Journal of Health Education Teaching Techniques:* 2(2): 41-54.

R. Roka*, A. Michimi, & G. Macy (2015). "Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity." *High Blood Pressure and Cardiovascular Prevention:* 22(3): 265-273.DOI 10.1007/s40292-015-0106-3.

G. Macy, D. Shearer, & C. Hanshaw (2014). "Assessing Barriers to Provider Referrals to a Diabetes Education Program." *The Kentucky Nurse.* July, August, September: 5-6.

G. Macy, C. Nagy, J. Bonaguro, G. English, M. Noland, & G. Lartey (2013). "Evaluation of the Life Is Cool Program." *Transplant Journal of Australasia*: 23(1): 15-20.

TECHNICAL REPORTS

C. Watkins, G. Lartey, G. Macy, V. Golla, & T. Lovely.
"Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Published March, 2014.

C. Nagy, G. Macy, J. Bonaguro, G. English, & G. Lartey. "The Evaluation of the Life Is Cool Program." Published November, 2011.

ACCEPTED MANUSCRIPTS

MANUSCRIPTS UNDER REVIEW (* denotes student author)

G. Macy, J. Hwang, R. Taylor, V. Golla, C. Cann & A. Murphy. "Examining Behaviors Related to Increased Exposures Among Rural Firefighters." Submitted to *Public Health Perspectives* on October 25, 2018.

R. Taylor, G. Macy, J. Hwang, V. Golla, & C. Cann. "Using Community Collaboration to Engage Firefighters in Rural Communities." Submitted *Journal of Rural Health* on October 17, 2018.

G. Macy, A. Murphy, M. Ickes, C. Watkins & B. Gates*. "Examining Factors Predicting Perceived Impact of Designated Use and Tobacco-free Policies on a University Campus." Submitted *American Journal of College Health* on August 10, 2018.

A.K Dispennette*, K.J Crandall, M. Shake, M, Schafer, & G. Macy. "Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults." Submitted to *Health Education and Behavior* on October 4, 2018.

E. Aghenta*, G. Macy, G. Lartey, & D. Shearer. "Examining Physical Activity Among College Students Using the Theory of Planned Behavior." Submitted *American Journal of Health Studies* on March 26, 2018.

J. Hwang, R. Taylor, G. Macy, M. Cann, V. Golla. "A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants." Submitted *Journal of Community Health* on January, 2018.

MANUSCRIPTS IN PROGRESS

REsearch in progress

C. Watkins & G. Macy. " Tobacco Free Policy on University Campus." Awarded an ACS Grant.

G. Macy, J. Crandall, C. Watkins & K. Burch. "Revision of *Bingocize* with Expansion to the Workplace."

J. Hwang, R. Taylor, G. Macy, M. Cann & V. Golla. "Qualitative Assessment of Environmental Exposures Among Career and Volunteer Firefighters."

Reviewer: Journals

*International Journal of Workplace Health Management*

*Physical Therapy in Sport*

*International Journal of Exercise Physiology*

*American Journal of College Health*

PRESENTATIONS

2018

J. Scott, C. Watkins & G. Macy. "The Shift Toward Total Worker Health, Workplace Training and Community Partnerships." Workers Compensation Institute. Orlando, FL. August 21, 2018.

C. Watkins, G. Macy, & R. Taylor. "Integration of Health Promotion and Health Protection: The Total Worker Health Concept on a University Campus." Bowling Green, KY. June 20, 2018.

G. Macy & C. Watkins. "Behavior Change: Logan Aluminum." Russellville, KY. March 8, 2018.

R. Taylor, J. Hwang, G. Macy, C. Watkins, J. Basham. "Firefighter Research Agenda." Firefighter Training School. Owensboro, KY. February, 2018.

2017

G. Macy & A. Murphy. "Qualitative and Mixed Methods Research." College of Health and Human Services Research Workshop. Bowling Green, KY. October 25, 2017.

J. Hwang, R. Taylor, M. Cann, G. Macy, and V. Golla. 2017. A Mixed-Methods Approach to

Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants Council of State and Territorial Epidemiologists. 6th Annual Southeastern States Occupational Network (SouthON) Meeting. Nashville, TN. April 6, 2017.

2016

C. Watkins, G. Macy, G. Lartey, & V. Golla. "Barrier Busters to Worksite Health Promotion Programs." 2nd Annual Healthy Worksite Wellness Summit, Bowling Green, KY, April, 27, 2016.

2015

C. Watkins, G. Macy. "Action Plans for Worksites." Healthy Worksite Wellness Summit, Bowling Green, KY, April, 29, 2015.

2014

R. Roka*, A. Michimi, & G. Macy. "Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity." Accepted for American Public Health Association Conference, New Orleans, LA, November, 2014.

C. Watkins, G. Macy, G. Lartey, & V. Golla.. "Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Centers for Disease Control and Prevention, Atlanta, GA, June 19, 2014.

C. Watkins, G. Lartey, G. Macy & V. Golla.. "Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

C. Watkins, G. Lartey, G. Macy & V. Golla.. "Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Kentucky Department for Public Health, Frankfort, KY, April 11, 2014.

E. Aghenta*, G. Macy, G. Lartey, & D. Shearer. "Using the Theory of Planned Behavior to Explain Physical Activity Among College Students." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

M.Perkins*, E. Aghenta*, G. Lartey, & G. Macy. "Self-esteem among south central Kentucky college students." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

2014

G. Macy. "Evaluating the Community Health Improvement Plan; Healthcare." Workshop for Healthcare Stakeholder Group of Barren River Community Health Planning Council. November 12, 2013.

2013

Organized and Introduced panel for WKU's Weight of the Nation Panel on the obesity epidemic. October, , 2013. Western Kentucky University, Bowling Green, KY.

Prior to 2013

G. Macy. "The Life Is Cool Program." Research Symposium for Jackson State Faculty, Bowling Green, KY. April 30, 2012.

G. Macy. "Body Mass Index (BMI); School Based Data Collection." School Nurse Conference, Barren River District Health Department, Bowling Green, KY. July 2011.

G. Macy. "Etiology and Prevention of Anterior Cruciate Ligament Tears." Exercise Physiology Major Symposium, University of Louisville, Louisville, KY. February 2003.

<u>POSTER PRESENTATIONS (*denotes student author)</u>

Dispennette, K.A*., Crandall, K.J., Schafer, M., Shake, M., Macy, G., & Clark, B. Effects of Bingocize® on quality of life and fall risk in community –dwelling older adults. Midwest American College of Sports Medicine Conference, November 9-10, 2018.

G. Macy, A. Murphy, M. Ickes, C. Watkins, & B. Gates*. "Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy." American College Health Association Annual Meeting, Washington, D.C., May 31- June 1, 2018.

B. Gates*, G. Macy, C. Watkins, A. Murphy, & M. Ickes. "Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies." Kentucky Public Health Association Conference, Covington, KY, April 28, 2018.

B. Gates*, G. Macy, C. Watkins, A. Murphy, & M. Ickes. "Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies." College of Health and Human Services Research Showcase, Bowling Green, KY, March, 30, 2018.

G. Macy, A. Michimi, & S. Seshadri, "Barren River Initiative to Get Healthy Together (BRIGHT) Project." College of Health and Human Services Research Showcase, Bowling Green, KY, March, 2016.

G. Macy, A. Michimi, S. Seshadri, J. Golden, K. Carter, & M. Noall, "Barren River Initiative to Get Healthy Together (BRIGHT) Project." Kentucky Public Health Association Conference, Owensboro, KY, April, 2015.

G. Macy, C. Nagy, J. Bonaguro, G. English, & G. Lartey. " Evaluation of the Life Is Cool Project." American Public Health Association Conference, San Francisco, CA October 29, 2012.

G. Macy, C. Nagy, J. Bonaguro, G. English, & G. Lartey "The Life Is Cool Project." Kentucky Public Health Association Conference, Louisville, KY. March 29, 2012.

RESEARCH INVOLVING STUDENTS IN 2017-2018

MANUSCRIPTS

G. Macy, A. Murphy, M. Ickes, C. Watkins & B. Gates*. "Examining Factors Predicting Perceived Impact of Designated Use and Tobacco-free Policies on a University Campus." Submitted *American Journal of College Health* on August 10, 2018.

A.K Dispennette*, K.J Crandall, M. Shake, M, Schafer, & G. Macy. "Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults." Submitted to *Health Education and Behavior* on October 4, 2018.

PRESENTATIONS

G. Macy, A. Murphy, M. Ickes, C. Watkins, & B. Gates*. "Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy." American College Health Association Annual Meeting, Washington, D.C., May 31- June 1, 2018.

B. Gates*, G. Macy, C. Watkins, A. Murphy, & M. Ickes. "Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies." Kentucky Public Health Association Conference, Covington, KY, April 28, 2018.

MENTORED STUDENT RESEARCH

THESIS CHAIR

E. Aghenta*, G. Macy, G. Lartey, & D. Shearer. "Using the Theory of Planned Behavior to Explain Physical Activity Among College Students." May, 2014.

THESIS COMMITTEE

K. Dispennette*, J. Crandall, M. Schafer, G. Macy. "The effects of Bingocize on fall risk, health knowledge, and quality of life in community-dwelling older adults." July, 2018.

STUDENT CAPSTONE CHAIR

A. Koskei*, "Marijuana use perceptions among users and non- users." May, 2013.

K. Morgan*. "

P. Chavan*, "Seat belt and Booster Seat Use among Drivers, Passengers and Children in Barren, Hart and Metcalfe Counties, Kentucky." May, 2013.

V. Chemweno*, "Trend Analysis of Adult Smoking Rates in Kentucky, 2002-2010." May, 2013.

D. Glaser*, "Prescription Opioid Abuse among Adolescents in Warren County - Findings from Parental Knowledge Survey." May, 2013.

L. Glass*, "US. Public Health Service FDA Food Code and Impact on Restaurant Scores." May, 2013.

J. Patel*, "Obesity and Drinking Patterns among the Adult Population in Kentucky." May, 2013.

M. Zahmak*, "Socio-Demographic Factors and Colonoscopy/Sigmoidoscopy Use among Americans Age 50-75 Years, 2010: A Cross-Sectional Study from Behavioral Risk Factors Surveillance System." May, 2013.

V. Nikam*, "Relationship of Physical Activity, Fruit and Vegetable Intake, and Race with Obesity among Houston, Texas High School Students." May, 2013.

R. Roka*, "Body Mass Index and Waist Circumference as a predictor of Hypertension in an Adult U.S. Population: A Comparative Analysis." May, 2013.

STUDENT POSTER PRESENTATIONS

J. Nasson*, "Ethical Reasoning and the Culture Change Movement in Long-Term Care." CHHS Research Showcase, Bowling Green, KY, March, 2017.

S. Pennington*, "Ethical Considerations in Geriatric Occupational Therapy." CHHS Research Showcase, Bowling Green, KY, April, 2016.

Y. Chen*, "The Role of Hypertension in the Prevention of Cardiovascular Disease." Kentucky Public Health Association Conference, Owensboro, KY, April, 2016.

K. Uju*, " Anemia Among Pregnant Women in Nigeria." Kentucky Public Health Association Conference, Owensboro, KY, April, 2016.

R. Bailey*. "Prescription Opioid Abuse in Kentucky." Kentucky Public Health Association Conference, Owensboro, KY, April, 2015.

R. Bailey*. "Prescription Opioid Abuse in Kentucky." WKU Student Research Conference, Bowling Green, KY, April, 2015.

B. Alipoorabedi*."Diabetes Mellitus and Renal Failure." Kentucky Public Health Association Conference, Owensboro, KY, April, 2015.

P.Tadakamalla* & M. Smith*, " Self-Efficacy in Oral Cancer Screening Among Medical Providers in South Central Kentucky." Kentucky Public Health Association Conference, Louisville, KY, April, 2014.

D. Walker*, G. Macy. " Colon Cancer in Kentucky." Kentucky Public Health Association Conference, Louisville, KY, April, 2014.

M. Yousuf*, G. Macy. "Ill-Effects of Carbonated Beverages on Teeth." Kentucky Public Health Association Conference, Louisville, KY, April, 2014.

E. Aghenta*, G. Macy, G. Lartey, & D. Shearer. "Using the Theory of Planned Behavior to Explain Physical Activity Among College Students." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

M.Perkins*, E. Aghenta*, G. Lartey, & G. Macy. "Self-esteem among south central Kentucky college students." Kentucky Public Health Association Conference, Louisville, KY, April 15, 2014.

CONFERENCES/WORKSHOPS ATTENDED

Visual Analytics Training, Bowling Green, KY, October 2018.

4th Annual Roadmap to a Healthy Workplace, Bowling Green, KY, September 2018.

Workers' Compensation Institute, Orlando, FL, August 2018.

Kentucky Public Health Association Conference, Covington, KY, April 2018.

18th Annual PRP Symposium, Cincinnati, OH, October 5-6, 2017.

3rd Annual Roadmap to a Healthy Workplace, Bowling Green, KY, September 2017.

Office of Sponsored Programs, Workshop for Principal Investigators and Project Directors, Bowling Green, KY, July 26, 2017.

Kentucky Public Health Association Conference, Owensboro, KY, April 2017.

CHHS Research Methods Workshop, Open Access and Predatory Publishing, March 3, 2017.

CHHS Research Methods Workshop, Review: Research Question, Hypothesis and Methodology, February 22, 2017.

Healthy Worksite Wellness Summit, Bowling Green, KY, April 27, 2016.

Kentucky Public Health Association Conference, Owensboro, KY, April 2016.

2015 Howard L. Bost Memorial Health Policy Forum: Building Healthy Places, Bowling Green, KY. September 28, 2015.

Healthy Worksite Wellness Summit, Bowling Green, KY, April, 29, 2015.

Kentucky Public Health Association Conference, Owensboro, KY, April, 2015.

Western Kentucky University Student Research Conference, Bowling Green, KY, March 2013.

Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

Western Kentucky University Student Research Conference, Bowling Green, KY, March 2013.

The Art and Science of Health Promotion Conference, Colorado Springs, CO, March, 2014.

Kentucky Public Health Association Conference. Louisville, KY, March, 2013.

Western Kentucky University Student Research Conference, Bowling Green, KY, March 2013.

Kentucky Public Health Association Conference, Louisville, KY. March 29, 2012.

School Nurse Conference, Barren River District Health Department, Bowling Green, KY. July 2011.

SERVICE

PROFESSIONAL SERVICE

Committee for the Expansion of Health Links, 2017-Present

Barren River Initiative to Get Healthy Together (BRIGHT) Coalition, 2013-Present

Bowling Green Junior High Youth Services Center Advisory Council, 2015-Present

Kentucky Public Health Association, Conference Committee Chair, 2012-Present

Kentucky 4-H Dollars and Sense Volunteer, 2012-Present

BRIGHT Worksite Stakeholder Group Healthy Worksite Summit Planning Committee, 2014-2018

Taught courses on Conflict Resolution to Bowling Green Independent School students, 2016

Community Action of Southern KY Poverty Simulation Participant, 2015

BRIGHT School Health Stakeholder Group, 2012-2014

Speaker at the Nurse's Health Conference, 2013

WKU's Focus on Western Public Health Representative, 2012

UNIVERSITY SERVICE

WKU Blood Drive Committee, 2013-Present

*Healthy Days* Volunteer, 2012-2014

Director of *WKU's Weight of the Nation,* 2013

CHHS SERVICE

CHHS Research Committee, 2018-present

College of Health and Human Services Awards Committee, 2012-2017

DEPARTMENT SERVICE

Department of Public Health Mentorship Committee, 2018-Present

WKU Kentucky Public Health Association Student Chapter Faculty Co-Sponsor, 2012-Present

WKU Department of Public Health MPH/BSPH Committee, 2016-Present

WKU Department of Public Health MPH Curriculum Committee, 2016-Present

WKU Department of Public Health MPH Generalist Committee, 2015-2017

WKU Department of Public Health Practical Experience Committee, 2012-2016

WKU Department of Public Health Culminating Experience Committee, 2012-2016

Exhibitor at The Art & Science Health Promotion Conference, Colorado Springs, Colorado, 2014

WKU Department of Public Health Liaison to Barren River District Health Department, 2012-13

Curriculum Development:

Developed graduate introductory course for the Environmental and Occupational Health and Safety MS, 2018

Developed graduate Worksite Assessment course, 2016

Developed On Demand courses for PH 587 Health Behavior and PH 486 Sexuality Education

Search Committees:

Public Health Visiting Assistant Professor, 2018-

Public Health Environmental Health Faculty Position, 2017 - 2018

Healthcare Administration Faculty Position, 2016 - 2017

Public Health Environmental Health Faculty Position, 2013 - 2015

Healthcare Administration Faculty Position, 2014 - 2015

PROFESSIONAL MEMBERSHIPS

Kentucky Public Health Association, 2011-Present

American Public Health Association, 2012-2014

Association for Prevention Teaching and Research, 2013-2014

**Edrisa Sanyang, Ph.D., MPH, MS**

EDUCATION AND PROFESSIONAL HISTORY

Education

| Institution | Field of Study | Degree Obtained | Degree Date |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Gambia College, School of Public Health, Brikama, The Gambia | Environmental Health Sciences | HND | 2001 |
| The University of The Gambia, School of Medicine & Allied Health Sciences, Banjul, The Gambia | Public and Environmental Health | BSc (Hons) | 2007 |
| Leeds Beckett University, Leeds, UK | Health Promotion and Environmental Health | MSc | 2011 |
| University of Iowa, College of Public Health, Iowa City, Iowa, USA | Occupational and Environmental Health | MPH | 2012 |
| University of Iowa, College of Public Health, Iowa City, Iowa, USA | Occupational and Environmental Health | PhD | 2016 |

Professional and Academic Positions

| Position Title | Dates of Service | Institution/Location |
|---|---|---|
| Assistant Public Health Officer | 2001 – 2005 | Ministry of Health & Social Welfare, Banjul, The Gambia |
| Public Health Field Epidemiologist | 2005 – 2007 | Ministry of Health & Social Welfare, Banjul, The Gambia |
| Project Manager, Water & Sanitation | 2007 – 2011 | ChildFund International, Gambia Office, Kanifing, The Gambia |
| Lecturer | 2011 – 2014 | Department of Public & Environmental Health, University of The Gambia, Brikama, The Gambia |
| Graduate Research Assistant | 2014 – 2016 | Injury Prevention Research Center, College of Public Health, University of Iowa, Iowa City, Iowa, USA |
| Research Associate | 2016 – 2017 | Injury Prevention Research Center, College of Public Health, University of Iowa, Iowa City, Iowa, USA |
| Visiting Assistant Professor | 2017 – 2018 | Department of Public Health, College of Public Affairs & Admin, University of Illinois, Springfield, Illinois, USA |

| | | |
|---|---|---|
| Assistant Professor | 2018 – Present | Department of Public Health, College of Health and Human Services, Western Kentucky University, Bowling Green, Kentucky, USA |

Honors and Awards

| Year | Title/Location |
|---|---|
| 2002 – 2005 | World Health Organization (WHO) Scholarship, WHO African Region, Harare |
| 2007 – 2011 | Leeds Education Trust Fund, Leeds, UK |
| 2010 | International Training and Research in Environmental and Occupational Health Scholarship, Fogarty International Center, National Institutes of Health, USA |
| 2011 – 2012 | International Training and Research in Environmental and Occupational Health Scholarship, Fogarty International Center, National Institutes of Health, USA |
| 2014 – 2016 | Collaborative Trauma and Injury Research Scholarship, Fogarty International, National Institutes of Health, USA |

TEACHING

Current Teaching Assignments – Western Kentucky University, Department of Public Health

Fall 2018 - PH 584 – Principles of Environmental Health

PH 385 – Environmental Health

Spring 2019 - PH 584 – Principles of Environmental Health

EOHS 560 – Environmental Management and Risk Assessment

Trainings

Online Teaching: The Essential Course

Previous Teaching Assignments

University of Illinois at Springfield, Department of Public Health

MPH 521 – Environmental and Occupational Health

MPH 488 – Occupational Health and Safety

MPH 506 – Community Health Research

MPH 224 – Epidemiology – Science of Disease Discovery

University of The Gambia, Department of Public & Environmental Health

PHC 506 – Current Public Health Concepts and Strategies

MPH 655 – Independent Study

MSPH 655 – Independent Study

PHC 506 – Global Environmental Health

PEH 265 – Public Health Inspection and Report Writing

PEH 101 – Introduction to Public Health and Professional Ethics

PEH 240 – Water Supply and Sanitation

PEH 110 – Community Health and Primary Health Care

PEH 100 – Introduction to Public Health

Gambia College, School of Public Health

PEH 240 – Water Supply and Sanitation

PEH 325 – Public Health and Social Work

SCHOLARSHIP

Peer-Reviewed Publications

Bass P, Sanyang E, Mau-Roung L (2018). "Risk Factors for Violent Injuries and Their Severity Among Men in The Gambia". American Journal of Men's Health. https://doi.org/10.1177/1557988318794524

Sanyang E, Peek-Asa C, Young T, Fuortes L (2017). Child Supervision and Burn Outcome among Admitted Patients at Major Trauma Hospitals in the Gambia. Int J Environ Res Public Health. 2017 Jul 30;14(8). pii: E856. doi: 10.3390/ijerph14080856. PubMed PMID: 28758942.

Sanyang E, Peek-Asa C, Bass P, Young TL, Jagne A, Njie B (2017). "Injury factors associated with discharge status from emergency room at two major trauma hospitals in The Gambia, Africa". Injury. 2017 Apr 5. pii: S0020-1383(17)30201-2. doi: 10.1016/j.injury.2017.03.048. [Epub ahead of print] Review. PubMed PMID: 28408082.

Sanyang E, P.-A. C., Bass P, Young T.L, Daffeh B, Fuortes L.J, (2017). "Risk factors for road traffic injuries among different road users in The Gambia." Hindawi Journal of Enviornmental and Public Health, 2017: 1 - 9.

Wallis, A. B. and Sanyang, E (2017). "New era for health in The Gambia" Lancet 389(10084): 2101-2102.

Sanyang, E., J. Butler-Dawson, M. A. Mikulski, T. Cook, R. A. Kuye, K. Venzke and L. J. Fuortes (2016). "Environmental and occupational health needs assessment in West Africa: opportunities for research and training." International Journal of Public Health 62(2): 317-325.

Murphy, M. W., Sanderson, W.T., Birch, M.E., Liang, F., Sanyang, E., Canteh, M., Cook, T.M., Murphy, S.C (2012). "Type and Toxicity of Pesticides Sold for Community Vector Control Use in The Gambia." Epidemiology Research International 2012.

Sanneh, E.S., Hu, A.H., Chang, Y.M., Sanyang, E (2011). "Introduction of a recycling system for sustainable municipal solid waste management: a case study on the greater Banjul area of the Gambia." Environ. Dev. Sustain. 13, 1065–1080.

Manuscripts Under Review

Sanyang E, Peek-Asa C, Young T, Bass P, Jagne A, Fuortes L. Personal and Injury Characteristics associated with transfer status and time to definitive care hospitals in The Gambia. International Journal of Environmental Research and Public Health.

Yu W.Y, Bass P, Sanyang E, Lin M.R. "Risk Factors for Recurrent Violent Injuries among African Men in The Gambia". Journal of Community Health.

Bass P, Sanyang E, Lin M.R. Risk Factors for Injury from Physical Violence and its Severity among Women in The Gambia. The Injury Journal.

Manuscripts in Progress

Keum C, Sanyang E, Bass P, Ndow B, Fourtes L, Hammann C, Peek-Asa C. Road traffic crashes and injury severity among pedestrian in Greater Banjul Area, The Gambia. Journal of Global Health: Science and Practice.

Butler-Dawson J, Kuye RA, Sanyang E, Rohlman DS, and Thorne PS. Neurobehavioral effects associated with low-level exposure to pesticides in The Gambia. Journal of Occupational and Environmental Medicine.

Alamu J, Sanyang E, Njie B, Dungey KE, and Kuye RA. Cross sectional epidemiologic study of well-water quality and prevalence of gastroenteritis in a developing country. Journal of Environmental Highlights.

Theses/Dissertation, Capstone, Poster, and Directed Student Research

Mentored Graduate Student. Rambhatla, N (Fall 2018). *Opioid Abuse in Kentucky*. Environmental and Occupational Health Program, Department of Public Health, Western Kentucky University.

Dissertation Committee and Co-Project Director. Bass, P. (2016 – 2018). *Pattern and risk factors of violent injuries in the greater Banjul area, the Gambia*. Taipei Medical University, School of Public Health

Thesis Supervisor. Dumbuya, M. (2017 – 2018). *Investigation of Injury Risk Among Welders in the Kanifing Municipal Council, The Gambia.* University of The Gambia, Department of Public & Environmental Health

Dissertation Co-Project Director. Buttler-Dawson, J (2013 – 2015). *Pesticide exposure, risk factors, and neurobehavioral performance among vulnerable populations*. University of Iowa, College of Public Health.

Thesis Co-Supervisor. Keum, C.B (2016). *Analysis of road traffic crashes and injury severity of pedestrian victims in the Gambia.* University of Iowa, College of Public Health.

Thesis Field Supervisor. Vo, T. (2016). *The effectiveness of cloth filtration in the removal of fecal coliforms in drinking water in rural Gambian villages.* University of Iowa, College of Public Health.

Capstone Preceptor. Barlow, M. (2014). *A process evaluation of 'Hands on Care' NGO: Orphan and Vulnerable Children Food Program.* University of Iowa, College of Public Health.

Thesis Co-Supervisor. Mendy, M. (2013). *Role of Household Heads in the Promotion and Utilization of Insecticide-Treated Nets*. Leeds Beckett University.

Research Grants received/Coordinated

| Source/Title | Position/Role | Amount/ Funding Period |
|---|---|---|
| National Institutes of Health/Fogarty International, USA; Global Environmental and Occupational Health (GEOHealth) | Program Director | $400,000.00<br>2012 – 2016 |
| RTIRN/CIREH Pilot Grants: Epidemiology of Injuries in The Gambia | Principal Investigator | $44,095.81<br>2014 – 2016 |
| University of Illinois Springfield, Faculty Competitive Grant: Blood Lead Levels among Occupationally Exposed Workers, Gambia. | Principal Investigator | $10,000.00<br>2018 - 2019 |
| University of Iowa Injury Prevention Center Pilot Grant: Youths' Risk Perception of Road Traffic Crashes, The Gambia | Principal Investigator | $5,300.00<br>2018 - 2019 |

Consultancies

| Title | Awarding Organization | Position/Role | Year |
|---|---|---|---|
| Sibanor Drinking-Water Pyramid Evaluation | ChildFund International, The Gambia | Lead Consultant | 2011 |
| Environmental and Social Impact Assessment: Trans-Gambia Road Project | National Roads Authority, The Gambia | Co-Consultant | 2016 |
| National Community Led Total Sanitation (CLTS) Program Evaluation | Ministry of Health & Social Welfare / United Nations Children Fund (UNICEF) | Lead Consultant | 2016 |
| National Road Safety Strategy Development | Ministry of Health & Social Welfare / World Health Organization (WHO) | Lead Consultant | 2017 |

SERVICE

Departmental, Collegial and University Service

| Position Title | Dates of Service | Institution/Location |
|---|---|---|
| Coordinator, Leeds Beckett Offsite Provision | 2010 – 2014 | Leeds Beckett University Gambia Program, Banjul, The Gambia |
| Associate Director, MHIRT Program | 2011 – 2016 | Department of Public & Environmental Health, University of The Gambia, Brikama, The Gambia |
| Coordinator, Graduate Programs in Public & Environmental Health | 2012 – 2014 | Department of Public & Environmental Health, University of The Gambia, Brikama, The Gambia |
| Faculty Adviser, African Students Association (ASA) | 2017 – 2018 | University of Illinois at Springfield, Springfield, Illinois, USA |

Professional Organizations

| Year | Organization | Position |
|---|---|---|
| 2002 – 2016 | Gambia Association of Public Health Officers (GAPHO) | Treasurer (2005 – 2010) |
| 2004 – 2014 | Association for the Advancement of Science and Technology (AASAT) | Member |
| 2010 – Present | American Public Health Association (APHA) | Member |
| 2017 – 2018 | Illinois Environmental Health Association (IEHA) | Member |

**Xiuhua Ding, MD, PhD**

Education

PhD., Epidemiology and Biostatistics, 2016

University of Kentucky, Lexington, KY

M.S., Molecular Biology, 2003

Medical College of Inner Mongolia, Hohhot, China

M.D., Doctor of Medicine, 2000

Medical College of Zhangjiakou, Zhangjiakou, China

Professional Experience

Assistant Professor, August, 2016 – Present

Western Kentucky University, Department of Public Health, Bowling Green, KY

Research Assistant, August, 2012 – August, 2016

University of Kentucky, Department of Biostatistics, Lexington, KY

Research Associate, June, 2007 - August, 2012

Augusta University, Georgia Prevention Institute, Augusta, GA

Award/Presentation

*Student poster presentation*, titled "Assessment of ergonomics among Indian dental practitioners" in 70th Annual Kentucky Public Health Association (KPHA) Conference in Covington, KY(2018)

*Student poster Presentation*, titled "Assessment of ergonomics among Indian dental practitioners" in American Public Health Association 2018 Annual Meeting in San Diego, CA(2018)

*Student poster Presentation*, titled "Assessment of ergonomics among Indian dental practitioners" in WKU student research conference in Bowling Green, KY(2018)

*Graduate Student Research Grant ($1918.13),* titled "Assessment of Ergonomics in Indian Dental Practice" by Divya Gadde

*Approved IRB application,* titled "comparison of teaching effectiveness in traditional class and online class and identifying factors may improve teaching effectiveness", PI: Xiuhua Ding & Co-PI : Harshitha Ponnala, EHS student

Poster Presentation, titled "Quality of life scores are associated with incidence of cognitive impairments: Results from PREADViSE" in Society for Epidemiologic Research (SER), Baltimore, MD (2018)

Poster Presentation, titled "Quality of life scores are associated with incidence of cognitive impairments: Results from PREADViSE" in Alzheimer's Disease International Conference (AICC), Chicago, IL (2018)

Oral presentation, titled “Comparison of trajectories of episodic memory for over 10 years between baseline normal and MCI ADNI subjects.” in Society for Epidemiologic Research (SER) conference, Seattle, WA(2017)

Invited talk, titled “Introduction of Medical Research ” for Western Kentucky University Heart & Lung Conference, Bowling Green, KY (2017)

Poster Presentation on CPH research day at University of Kentucky (2016)

Poster Presentation on Alzheimer's Disease Symposium at University of Kentucky (2015)

Award of participation of NGS workshop at University of Kentucky supported by Kentucky Infrastructure in Ecological Genomic Project (2013)

Oral and poster presentation on Genetic Analysis Workshop 18 (GAW18) , Stevenson, WA (2012)

Poster presentation on CPH research day at University of Kentucky (2012)

Travel Award for Genetic Analysis Workshop (GAW) 18 (2012)

Service/Society

Member of American Statistics Association

Member of Society for Epidemiologic Research

Member of MPH admission committee, Department of Public Health

Member of MPH curriculum committee, Department of Public Health

Member of MPH/BSPH committee, Department of Public Health

Member of diversity committee, Department of Public Health

Served as a reviewer for PLos One

Served as a reviewer for Infection, Genetics and Evolution

Served as a member on partnership with China in College Health and Human Services

Served as a member on Epi/Bios certificate

Served as judge for WKU student research conference (2017,2018)

Served as reviewer for  Faculty-Undergraduate Student Engagement (FUSE) (2017, 2018)

Thesis committee member for Yu-Hsuan Chen, MPH students (2017)

Thesis committee member for Divya Gadde, MPH students (2018)

Supervision of graduate assistant: Ponnala, Harshitha (2018)

Supervision of graduate assistant: Yu-Hsuan, Chen (2017)

Professional development

New courses development : face-to-face courses (PH384, PH 582, and PH630), online course(PH384, PH582)

Certificate of online teaching: the essentials

Teaching experience

PH384 - Introduction of Epidemiology (Undergraduate)

PH 582- Epidemiology (Graduate)

PH 630- Advanced Epidemiology (Graduate)

PH580- Biostatistics I (graduate course as teaching assistant)

Grant Application

Quick Turn Around Grant (QTAG) – Awarded ($2120, 4/1/2018-7/31/2018. PI: Xiuhua Ding)

Publication

Ding X, Abner E, Schmitt F, Kryscio R. Quality of life scores are associated with incidence of cognitive impairments: Results from PREADViSE. (*In process*)

Ding X, Charnigo R, Schmitt F, Kryscio R, Abner E. Comparison of trajectories of episodic memory for over 10 years between baseline normal and MCI ADNI subjects. (*In process*)

Ding X, Charnigo R, Schmitt F, Kryscio R, Abner E.Comparison between neural network and logistic regression in PREADViSE trial. (*In process*)

Jiang Y, Lin MK, Jicha GA, Ding X, Mclwrath SL, FARDO DW, Broster LS, Schmitt FA , Kryscio R, Lipsky RH.Functional. Functional human GRIN2B promoter polymorphism and variation of mental processing speed in older adults. Aging (Albany NY). 2017 Apr;9(4):1293-1306.

X. Zhang, F.A. Schmitt, A.M. Caban-Holt, Ding X, R.J. Kryscio, E. Abner. Diabetes mitigates the role of memory complaint in predicting dementia risk: Results from the Prevention of Alzheimer's Disease with Vitamin E and Selenium Study. *J Prev Alz Dis 2017;4(3):143-148*.

Ding X, Kryscio RJ, Turner JK, Jicha GA, Cooper GE, Caban-Holt AM, Schmitt FA, Abner EL. Sleep apnea and dementia risk: Findings from the PREADViSE Alzheimer's disease prevention trial. J Am Geriatr Soc. 2016 ;64(12):2472-2478.

Ding X, Su S, Nandakumar K, Wang X, Fardo D. A Two-Step Penalized Regression Method for Family-based Next Generation Sequencing Association (BMC Proceeding)

Ray DS, Wiemann AH, Patel PB, Ding X, Kryscio RJ, Miller CS. Estimation of the rate of tooth wear in permanent incisors: a cross-sectional digital radiographic study. J Oral Rehabil. 2015 Mar 10.

Miller CS, Foley JD 3rd, Floriano PN, Christodoulides N, Ebersole JL, Campbell CL, Bailey AL, Rose BG, Kinane DF, Novak MJ, McDevitt JT, Ding X, Kryscio RJ. Utility of Salivary Biomarkers for Demonstrating Acute Myocardial Infarction. J Dent Res. 2014 May 30; 93(7 suppl): 72S-79S.

Syndergaard B, Al-Sabbagh M, Kryscio RJ, Xi J, Ding X, Ebersole JL, Miller CS. Salivary biomarkers associated with gingivitis and response to therapy. J Periodontol. 2014 Aug;85(8):e295-303.

Bush ML, Osetinsky M, Shinn JB, Gal TJ, Ding X, Fardo DW, Schoenberg N.Assessment of Appalachian region pediatric hearing healthcare disparities and delays. Laryngoscope. 2014 Jul;124(7):1713-7.

Roedig JJ, Phillips BA, Morford LA, Van Sickels JE, Falcao-Alencar G, Fardo DW, Hartsfield JK Jr, Ding X, Kluemper GT Comparison of BMI, AHI, and apolipoprotein E ε4 (APOE-ε4) alleles among sleep apnea patients with different skeletal classifications.J Clin Sleep Med. 2014 Apr 15;10(4):397-402.

Yan W, Li N, Hu X, Huang Y, Zhang W, Wang Q, Wang F, Wang C, Zhai X, Xu R, Yan K, Ding X, Wang X. Reply to Manuscript IJC-D-12-04197 entitled "Does Alpha-lipoic Acid Treatment Play a Role on Oxidative Stress and Insulin Resistance in Overweight/Obese Patients?" by MD Turgay Ulas. International Journal Cardiology (2013).

Xu X, Ding X, Zhang X, Su S, Treiber FA, Vlietinck R, Fagard R, Derom C, Gielen M, Loos RJ, Snieder H, Wang X. Genetic and Environmental Influences on Blood Pressure Variability: A Study in Twins. J Hypertens. 2013; 31(4):690-7.

Yan W, Li N, Hu X, Huang Y, Zhang W, Wang Q, Wang F, Wang C, Zhai X, Xu R, Yan K, Ding X, Wang X. Effects of Oral ALA Supplementation on Oxidative Stress and Insulin Sensitivity among Overweight/Obese Adults: A Double-blinded, Randomized, Controlled, Cross-over Intervention Trial. International Journal Cardiology (2012).

Wang X, Ding X, Su S, Harshfield G, Treiber F, Snieder H. Genetic influence on blood pressure measured in the office, under laboratory stress and during real life. Hypertens Res. 2011 Feb; 34(2):239-44.

Wu T, Snieder H, Li L, Cao W, Zhan S, Lv J, Gao W, Wang X, Ding X, Hu Y. Genetic and environmental influences on blood pressure and body mass index in Han Chinese: a twin study. Hypertens Res. 2011 Feb;34(2):173-9.

Wang X, Ding X, Su S, Spector TD, Mangino M, Iliadou A, Snieder H. Heritability of insulin sensitivity and lipid profile depend on BMI: evidence for gene-obesity interaction. Diabetologia. 2009 Dec;52 (12):2578-84.

Wang X, Ding X, Su S, Yan W, Harshfield G, Treiber F, Snieder H. Genetic influences on daytime and night-time blood pressure: similarities and differences. J Hypertens. 2009 Dec; 27(12):2358-64.

Li Z, Snieder H, Su S, Ding X, Thayer JF, Treiber FA, Wang X. A longitudinal study in youth of heart rate variability at rest and in response to stress. Int J Psychophysiol. 2009 Sep;73(3):212-7.

Wang X, Ding X, Su S, Li Z, Riese H, Thayer JF, Treiber F, Snieder H. Genetic influences on heart rate variability at rest and during stress. Psychophysiology. 2009 May;46(3):458-65.

## Appendix 3: List of Peer-Review Publications

**Ritchie D. Taylor, Ph.D., M.S.**

Peer Reviewed – Published and Submitted

Macy, G., R. Taylor, J. Hwang, V. Golla, and C. Cann. 2018. Examining behaviors related to increased exposures among rural firefighters. *Perspectives in Public Health*. (Submitted October 25, 2018 – JRH-2108-10-0311).

Taylor R., G. Macy, J. Hwang, V. Golla, and C. Cann. 2018. Using community collaboration to engage firefighters in rural communities. *Journal of Rural Health*. (Submitted October 17, 2018 – JRH-2108-10-0311).

Hwang, J., R. Taylor, C. Cann, P. Norris, and V. Golla. 2018. Evaluation of accumulated polycyclic aromatic hydrocarbons and asbestiform fibers on firefighter vehicles: Pilot Study. *Fire Technology*. (Submitted September 17, 2018 – FIRE-D-18-00209).

Hwang, J., R. Taylor, W. Gilbert (EOHS Student), C. Cann, and V. Golla. 2018. Assessment of diesel particulates in fire departments using different exposure metrics: Pilot Study. *Fire Safety Journal*. (Submitted September 17, 2018 – FISJ_2018_374).

Cook, K.L, E.C. Givan (WKU MPH Student), H.M. Mayton, R.R. Parekh, R.D. Taylor, and S.L. Walker. 2017. Using the agricultural Environmental to select better surrogates for foodborne pathogens associated with fresh produce. *International Journal of Food Microbiology*. 262(2017): 80-88.

Givan, E. (WKU MPH Student), K. Cook, R.R. Parekh, J. Simmons, K. Sistani, and R. Taylor. Environmental E. coli as surrogates for foodborne pathogen contaminants associated with produce and agricultural soils. *Journal of Environmental Quality*. (*Submitted* July 19, 2017 – ID:JEQ-2017-07-0279-TR).

Hwang, J., R. Taylor, G. Macy, M. Cann, and V. Golla. 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants. *Journal of Occupational and Environmental Hygiene*. (*Submitted* May 3, 2017 – ID: JOEH-17-0132).

Taylor, R., V. Golla, and J. Basham. 2017. A comparison of hazardous materials commodity flow across the urban to rural gradient in five Kentucky counties. *Journal of Environmental Health*. (*Submitted* May 4, 2017 – Paper #: 2017-JEH-067).

Golla, V., J. Nelms, R. Taylor, and S. Mishra. 2011. Pesticide concentrations in drinking water from farm homes: variation between community water supply and well-water. *Journal of Environmental Science and Engineering*. 5(1):453-459.

Brooks, B.W., J.T. Scott, M.G. Forbes, T.W. Valenti, Jr., J.K. Stanley, R.D. Doyle, K.E. Dean, J. Patek, R.M. Palachek, R.D. Taylor, and L. Koenig. 2008. Reservoir zonation and water quality. *Lakeline*. 28(4):39-43.

Brooks, B.W., T.M. Riley, and R.D. Taylor. 2006. Water Quality of effluent-dominated ecosystems: ecotoxicological, hydrological, and management considerations. *Hydrobiologia*. Special Issue, Water Quality: from Assessments and Ecotoxicology to Remediation. 556:365-379.

Taylor, R.D., K..L. Dickson, and V. Golla. 2006. Drought induced dissolved oxygen dynamics of an effluent dominated stream entering a reservoir backwater and implications for environmental compliance. *Environmental Informatics Archives*. Vol. 4 (2006).

Taylor, R.D., E. Collins, J. Burns, and J. Willcox. 2005. Kentucky Pesticide Workgroup: An Integrated Approach to Source Water Protection in Kentucky's Agricultural Basins. *AWWA 2005 Source Water Protection Symposium Proceedings*. Palm Beach Gardens, FL. Edition: 2006 - CD-ROM ISBN 1583214135; Catalog No. 20610.

Corn, M.R., S.T. McCormick, B. Firth, and R.D. Taylor. 1997. Algal Influences on the Assimilative Capacity of the Red River. *Biological Sciences Symposium Proceedings*. Tappi Press. Session number 7-3.

Professional Articles – Peer Reviewed

Lyon, J.B., B. Tanner, and R.D. Taylor. 2004. Utilization of GIS Technology in Rural Water and Wastewater Systems: A Case Study of West McCracken Water District. *Waterproof*. Spring edition. pp. 10-11.

Taylor, R.D. and J. Lyons. 2003. GIS and GPS Applications for Small Water Utilities. *Waterproof*. Summer edition. p 13.

Taylor, R.D. 2001. Partnerships to Assist Water Utilities: WKU and KRWA. *Waterproof*. Fall edition.

Taylor, R.D. 2001. Developing Capacity: The Western Kentucky University Technical Assistance Center for Water Quality. *Waterproof*. Spring 2001. pp. 13-14.

Technical Reports

Golla, V., R.D. Taylor, J. Hwang, and J. Basham. "Annual Report for the NIOSH Training Grant". (2018). Submitted to the National Institute of Occupational Safety and Health. WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Taylor, R.D., J.R. Basham, and V. Golla. "Pike County, KY Hazardous Materials Commodity Flow Study". (2018). WKU Center for Environmental and Workplace Health. Bowling Green, Kentucky.

Taylor, R.D., C.M. Watkins, G.M. Macy, J.R. Basham, C.M. Cann, and J. Hwang. "Center for Environmental and Workplace Health: FY 2018 Annual Report". (2018). WKU Center for Environmental and Workplace Health. Bowling Green, KY.

Taylor, R.D., N. Kruth (student), and R. Hunton (student). "Executive Summary and Final Report for the City of Portland, TN Watershed Health Assessments". (2017). WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Taylor, R.D. "Bioassessment of Streams within the City of Goodlettsville, TN". (2017). *Watershed Health Assessments.* WKU Environmental and Occupational Health Science. Bowling Green, Kentucky.

Golla, V., R.D. Taylor, J. Hwang, and J. Basham. "Annual Report for the NIOSH Training Grant". (2017). Submitted to the National Institute of Occupational Safety and Health. WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Golla, V., R.D. Taylor, J. Hwang, and J. Basham. "Annual Report for the NIOSH Training Grant". (2016). Submitted to the National Institute of Occupational Safety and Health. WKU, Department of Public Health, Environmental and Occupational Health Science. Bowling Green, KY.

Taylor, R.D., M. Shirley (student), and R. Lauth (student). "Watershed Health Assessment of the Manskers Creek Watershed, Goodlettsville, TN". (2016). WKU, Department of Public Health, Environmental Health and Occupational Health Science. Bowling Green, KY.

Taylor, R.D., V. Golla, and J. Basham. "Shelby County, Kentucky hazardous materials commodity flow study". (2015). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Henderson County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky.

Taylor, R.D. "Bioassessment of streams within the City of Goodlettsville, TN". (2015). *Watershed Health Assessments.* WKU Environmental and Occupational Health Science. Bowling Green, Kentucky.

Taylor, R. D., Golla, V., Brown, J., Makinen, B., Richards, C., and Bryant, M., "Madison County, Kentucky hazardous materials commodity flow analysis". (2014). *Public Health Faculty Publications.* Paper 7. http://digitalcommons.wku.edu/public_hlth_fac_pub/7

Golla, V., Taylor, R. D., and Brown, J, "Montgomery County, Kentucky hazardous materials commodity flow analysis 1". (2014). *Public Health Faculty Publications.* Paper 6. http://digitalcommons.wku.edu/public_hlth_fac_pub/6

Golla, V., Taylor, R. D.; and Brown, J., "Rowan County, Kentucky hazardous materials commodity flow analysis". (2014). *Public Health Faculty Publications.* Paper 5. http://digitalcommons.wku.edu/public_hlth_fac_pub/5

Golla, V., R.D. Taylor, J. Eagleson, E. Givan, and R. Payne. "Daviess County, Kentucky hazardous materials commodity flow study." (2013). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Daviess County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/11

Taylor, V. Golla, J. Eagleson, E. Givan, and L. Koerber. "Henderson County, Kentucky hazardous materials commodity flow study. *Kentucky Emergency Management HAZMAT Commodity Flow Studies"*. (2013). WKU, Henderson County Kentucky Emergency Management

and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/10

V. Golla, R.D. Taylor, J. Suhl, J. Eagleson, Roni Grigsby and P. Chaven. "Louisville/Jefferson County, Kentucky hazardous materials commodity flow study". (2012). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Madison County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/9

Taylor, R.D., V. Golla, S. Advani, P. Gole, P. Chaven, C. , J.R. Brown and E.R. Barringer. "Madison County, Kentucky hazardous materials commodity flow study". (2011). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Madison County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/8

Taylor, R.D., V. Golla, S. Advani, R. Nair, P. Gole, J.R. Brown and E.R. Barringer. "Hazardous materials commodity flow study of I-65 and the Natcher Parkway in Warren County, Kentucky". (2010). *Kentucky Emergency Management HAZMAT Commodity Flow Studies*. WKU, Warren County Kentucky Emergency Management and Kentucky Emergency Management. Bowling Green, Kentucky. http://digitalcommons.wku.edu/public_hlth_fac_pub/4

Taylor, R.D., B. Strenecky, J. Norris, M. Calico, D. Carter, E. Main, D.G. Wright, B. Petty, and M. Kerby. "Impact Belize: international health service learning program, 2010". (2010). Western Kentucky University. College of Health and Human Services.

Taylor, R.D, B. Strenecky, J. Norris, M. Calico, D. Carter, B. Petty, M. Hill, and S. Ranapurwala. "Belize international health and human service learning program, 2009". (2009). Western Kentucky University, College of Health and Human Services.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for Kentucky". (2007). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D. and M. Hunt. "Final report: Kentucky nonpoint source education program for land use development". (2007). Western Kentucky University, Department of Public health. Report for Kentucky Division of Water, Kentucky Public Health and Environmental Health Protection Cabinet. Final report for grant funded 319 U.S. EPA project.

Taylor, R.D., J. Burns, J. Nelms., and J. Brown. Source water protection program in the North Fork of the Kentucky River Basin. "2006". Western Kentucky University, Department of Public Health and Kentucky Rural Water Association. Report for Kentucky River Authority.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for Kentucky". (2006). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for kentucky". (2005). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D., J. Burns, G. Larimore, and A. Lange. 2004. Assessment report of Kentucky River Authority assistance survey. Western Kentucky University, Department of Public Health and Kentucky Rural Water Association. Report for Kentucky River Authority.

Taylor, R.D., J. White and T. Nicholson. "Radon GIS and zone maps for Kentucky". (2004). Western Kentucky University, Department of Public Health. Completed for Kentucky Department for Public Health.

Taylor, R.D, K. Banks, and P.S. Aurora. "Water quality assessment and wasteload allocation for the proposed Clear Creek Water Reclamation Plant, City of Denton, Denton County, Texas". (2003). Western Kentucky University, Center for Water Resource Studies and City of Denton Water Resources Program. Report for NPDES permitting to TCEQ. WKUCWRS2003-001.

Taylor, R.D., J. Burns, J. Willcox, and T. Lyons. 2003. "Source water assessment for the McCreary County Water District". (2003). Western Kentucky University, Center for Water Resource Studies and Kentucky Rural Water Association.

O. Meier, C. Groves, Taylor, R.D., S. Wallace, A. Lange, P. East, J. Jack, and S. Grubbs. "Western Kentucky University Technical Assistance Center for Water Quality: quarterly reports". (2003). Western Kentucky University, Center for Water Resource Studies. Bowling Green, KY (for EPA Drinking Water Branch, Small Systems).

O. Meier, C. Groves, Taylor, R.D., S. Wallace, A. Lange, P. East, J. Jack, and S. Grubbs. "Western Kentucky University Technical Assistance Center for Water Quality: annual report". (2002). Western Kentucky University, Center for Water Resource Studies. Bowling Green, KY (for EPA Drinking Water Branch, Small Systems).

Taylor, R.D. and K.L. Dickson. Water quality modeling and characterization of Pecan Creek, Denton County Texas. (2001). University of North Texas, Institute of Applied Sciences. Denton, TX (for Trinity River Authority and Texas Natural Resource Conservation Commission).

Digital Media

Taylor, R.D. 2004. Partnerships for Source Water Protection. *Pesticide and Nutrient BMP's from the Classroom to the Field*. (2004). Kentucky Department of Agriculture. Environmental Education CD.

Taylor, R.D. 2003. Agricultural Partnerships for Source Water Protection. *AWWA Source Water Protection Symposium Workshop*. (2003). CD Volume I, Materials for the Design of Best Management Practices for the Source Water Protection Workshop. U.S. EPA, Office of Ground Water and Drinking Water, Drinking Water Protection Division.

Scholarly Presentations

Selected Peer-reviewed Abstracts, Conference and Symposia Presentations

Gadde, D. (Student), V. Golla, R.D. Taylor, and X. Ding. November 2018. Assessment of ergonomics in Indian dental practice. APHA 2018, Annual Meeting and Expo. American Public Health Association. San Diego, CA.

Hwang, J., R. Taylor, W. Gilbert (student), and V. Golla. October 2018. Assessment of diesel particulates using different exposure metrics: pilot study. PRP Symposium, University of Cincinnati, NIOSH Education and Research Center. Cincinnati, OH.

Hwang, J., R. Taylor, C.M. Cann, P. Norris, and V. Golla. May 2018. Exposure to residual polycyclic aromatic hydrocarbons in firefighter vehicles: Pilot Study. American Industrial Hygiene Association, Annual Conference, AIHCE EXP 2018. Philadelphia, PA.

Taylor, R.D. and J.R. Basham. February 2018. Hazardous Materials Commodity Transport in Kentucky and a Tool for Emergency Management. Kentucky Environmental Health Association, Annual Conference 2018. Bowling Green, KY. (Invited Speaker)

Hwang, J., R. Taylor, V. Golla, and C.M. Cann. October 2017. Assessment of diesel particulates in fire departments using different exposure metrics. NIOSH PRP Symposium. University of Cincinnati.

Hwang, J., R. Taylor, M. Cann, G. Macy, and V. Golla. April 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants. Council of State and Territorial Epidemiologists. 6th Annual Southeastern States Occupational Network (SouthON) Meeting. Nashville, TN.

Stanam, A., V. Golla, S. Vasa, and R.D. Taylor. November 2017. Exposure to computer work and prevalence of musculoskeletal symtoms among university employees: a cross-sectional study. APHA 2018, Annual Meeting and Expo. American Public Health Association. Atlanta, GA.

Basham, J.R., R. Taylor, and V. Golla. May 2016. A comparison of hazardous materials in five Kentucky counties: urban vs. rural gradient. American Industrial Hygiene Association Annual Conference and Exhibition. Baltimore, Maryland.

Shirley, M. (student), R. Lauth (student), and R. Taylor. April 2016. Watershed Health Assessment for a Small MS4 in the Mansker Creek Watershed. Western Kentucky University Student Research Conference. Bowling Green, KY.

Taylor, R., M. Shirley (student), and R. Lauth. April 2016. Watershed health as a model for human health protection and water quality. Kentucky Public Health Association Annual Conference. Owensboro, KY.

Cook, K., R. Taylor, and E. Givan (student). June 2015. Selection of *E. coli* surrogates with attachment and survival patterns similar to pathogens associated with produce. *CPS Produce Research Safety Annual Symposium*. Atlanta, GA.

Givan, E. (student), R. Taylor, and K. Cook. April 2014. Selection of *E. coli* surrogates for Produce Safety. *Kentucky Public Health Association, Annual Conference*. Owensboro, KY.

Grigsby, R. (student) and R. Taylor. March 2013. Occurrence of Synthetic Estrogen in Surface Water, Sourcewater and Drinking Water in the Barren River Watershed. *Kentucky Water Resources Research Symposium.* Lexington, KY.

Taylor, R.D., J.R. Brown (student), A. Murray and K. Smith. November 2012. An innovative approach to service learning and watershed management. *American Water Resources Annual Conference.* American Water Resources Association. Jacksonville, FL.

Ibekwe, O. (student), R.D. Taylor and W. Makanta. November 2012. Assessment of the drinking water quality from on-campus water fountains. *APHA 140th Annual Meeting and Expo.* American Public Health Association. San Francisco, CA.

Chavan, P. (student), V. Golla, R.D. Taylor and C. Ellis (student). April 2012. Hazardous material commodity flow analysis in Madison County, Kentucky. *KPHA Annual Meeting.* Kentucky Public Health Association. Louisville, KY.

Brown, J.R. (student), R.D. Taylor, E.R. Barringer (student). April 2012. Water quality measurements as a tool to assess stormwater Impacts. *KPHA Annual Meeting.* Kentucky Public Health Association. Louisville, KY.

Taylor, R.D., V. Golla, and S. Advani (student). 2011. November 2012. Hazardous materials commodity flow analysis: Warren County, Kentucky. *APHA 139th Annual Meeting and Expo.* American Public Health Association. Washington, D.C.

Advani, S. (student), R.D. Taylor and V. Golla. April 2011. Commodity flow of hazardous materials in Warren County, Kentucky. *KPHA Annual Meeting.* Kentucky Public Health Association. Louisville, KY.

Taylor, R.D., B. Strenecky, D. Carter, B. Petty, D.G. Wright, M.E. Main, M.B. Kerby, J. Norris (student), M, Calico (student), and R. Nair (student). November 2010. *APHA 138th Annual Meeting and Expo.* American Public Health Association. Denver, CO.

Kerby, M.B., D.G. Wright, M.E. Main, R.D. Taylor and D.M. Carter. June 2010. IMPACT Belize 2010. *8th Annual American Democracy Project National Meeting.* American Democracy Project and the American Association of State Colleges and Universities. Providence, RI.

Taylor, R.D., S. Ranapurwala (student), and M. Hill (student). November 2009. Protection of Public Health and Capacity Development for a Rural Water System in Gales Point, Belize – An Environmental Health Service Learning Project. American Public Health Association. APHA 137th Annual Meeting and Expo. Philadelphia, PA.

Mishra, S. (student), V. Golla, R. Taylor, and J. Nelms (student). November 2008. Atrazine in Drinking Water: Exposure Assessment and Analysis. American Public Health Association. APHA 136th Annual Meeting and Expo. San Diego, CA.

Taylor, R.D., V. Golla, J. Willcox, J. Nelms (student), and S. Melky (student). November 2007. An Integrated Approach to Source Water Protection and Awareness in Rural Agricultural Watersheds. American Public Health Association. *APHA 135th Annual Meeting and Exposition*. Washington, D.C.

Kinkead, G. (student), R. Grigsby (student), B. Vickous (student), and R.D. Taylor. November 2007. A Hazardous Chemical Release Analysis and GIS for Environmental Protection and Emergency Management in Bowling Green and Warren County, Kentucky. *Southeast Regional Environmental Science and Health Symposium.* Centers for Disease Control, Atlanta, GA.

Nelms, J. (student), Taylor, R.D., and V. Golla. November 2007. Sourcewater protection in rural agricultural watersheds in Kentucky and implications of atrazine monitoring. American Water Resources Association. AWRA Annual Water Resources Conference. Albuquerque, NM.

Taylor, R.D., K..L. Dickson, and V. Golla. May 2006. Drought induced dissolved oxygen dynamics of an effluent dominated stream entering a reservoir backwater and implications for environmental compliance. *5th International Conference on Environmental Informatics*. Vol. 4 (2006). Presentation of paper # 94. http://www.iseis.org/Events/ISEIS2006/confPapers.htm#wwt

Taylor, R.D., E. Collins, and J. Burns. January 2005. Kentucky Pesticide Workgroup: An Integrated Approach to Source Water Protection in Kentucky's Agricultural Basins. *AWWA 2005 Source Water Protection Symposium*. Session T6 – Effective Partnerships for Protecting Source Water Part II. Palm Beach Gardens, FL.

Taylor, R.D. and J. Willcox (student). November 2004. Partnerships for Source Water Protection in Agricultural Watersheds within Kentucky. *Public Health and the Environment*. APHA 132nd Annual Meeting and Exposition. Washington, D.C.

Selected Invited Presentations

Taylor, R.D., J. Hwang, and G. Macy. 2018. Review of recent firefighter health studies conducted by Western Kentucky University. Kentucky Fire Commission, Defend Yourself from Carcinogens, Learn What You Can Do. State Fire Training Center, # 6. Louisville, KY.

Basham, J.R. and R.D. Taylor. 2018. Green River Watershed Water Quality Data Review - 2018. Green River Watershed Watch Annual Conference. Bowling Green, KY.

Basham, J.R. and R.D. Taylor. 2018. Oldham County, KY Hazmat Commodity Flow Study. Oldham County Local Emergency Planning Commission, January Meeting. Oldham County Emergency Management. LaGrange, KY.

Taylor, R.D., J. Hwang, G.M. Macy, J.R. Basham, and C.M. Watkins. 2018. Firefighter Health Research: WKU Center for Environmental and Workplace Health. Plenary Address at the Bryant Stiles Officers School, Kentucky Fire Commission Assembly. Owensboro Convention Center, Owensboro, KY.

Taylor, R.D., W. Mkanta, J. Hwang, D. Babb, K.J. Crandall, and L. Winchester. 2018. How to Prepare A Successful RCAP Application. CHHS Research Methods Workshop. WKU College of Health and Human Services. Bowling Green, KY.

Taylor, R.D. and J.R. Basham. 2018. Citizen Science: Assessing Watershed Health. Green River Watershed Watch Annual Conference. Bowling Green, KY.

Basham, J.R. and R.D. Taylor. 2017. Hazardous Materials Commodity Flow Studies in Kentucky and Future Directions. Kentucky Emergency Response Commission, Kentucky Emergency Management. Versailles, KY.

Hwang, J. and R.D. Taylor. 2017. Firefighters, Occupational Exposures and Lessons Learned in Northwester Kentucky. CHHS Works in Progress Workshop. WKU College of Health and Human Services. Bowling Green, KY.

Taylor, R.D. and J. Basham. 2016. Comparison of Hazardous Materials Commodity Flow Studies in Five Kentucky Counties: Urban vs Rural Gradient. Kentucky Governor's Emergency Management Workshop, Kentucky Emergency Management. Louisville, KY.

Taylor, R.D. and J. Basham. 2016. Hazardous Materials Commodity Flow Studies, Future Needs, and New Directions. Kentucky Governor's Emergency Management Workshop, Kentucky Emergency Management. Louisville, KY.

Taylor, R.D. and J. Basham. 2016. Hazardous Materials Commodity Flow Study. Kentucky Governor's Emergency Management Workshop, Kentucky Emergency Management. Louisville, KY.

Taylor, R.D. and J. Basham. 2016. Rural to Urban Gradient Hazmat Commodity Flow Study in Western Kentucky. Kentucky Emergency Management Workgroup. Frankfort, KY.

Taylor, R.D. and M. Shirley. 2016. Watershed Health Assessment in the Mansker Creek Watershed. Middle Tennessee Stormwater Association. Quarterly Meeting. White House, TN.

Groves, C. and R.D. Taylor. 2015. Karst and Human Health Considerations. Tennessee Stormwater Association Workshop: Stormwater and Karst Geology. Lebanon, TN.

Taylor, R.D., V. Golla, and J. Eagleson. 2013. Henderson County, Kentucky Hazardous Materials Commodity Flow. Henderson County Emergency Management and Local Emergency Planning Committee, Quarterly Meeting. Henderson, KY.

Taylor, R.D., V. Golla, and J. Eagleson. 2013. Daviess County, Kentucky Hazardous Materials Commodity Flow. Daviess County Emergency Management and Local Emergency Planning Committee, Quarterly Meeting. Owensboro, KY.

Taylor, R.D. and V. Golla. 2013. Conducting a Hazardous Materials Commodity Flow Study in Your Community. Kentucky Emergency Management, Commonwealth Emergency Response Commission, Quarterly Meeting. Frankfort, KY.

Taylor, R.D. and V. Golla. 2012. Louisville/Jefferson County Hazardous Materials Commodity Flow Study. Louisville/Jefferson County Local Emergency Planning Committee, Quarterly Meeting. Louisville, KY.

Taylor, R.D. 2009. Belize International Health Service Learning. National Meeting for the $100 Solution. Western Kentucky University, Alive Center.

Taylor, R.D. 2008. International Environmental Service Learning: The Belize Experience. International Service Learning Symposium, Murray State University.

Taylor, R.D. 2007. Communicating with students through online course content. WKU Online Teacher's Summer Workshop. Western Kentucky University. Online Teaching Panel Discussion.

Golla, V., R.D. Taylor, and J. Nelms. 2007. Farm Families' Potential Exposures to Pesticides through Drinking Water. Kentucky Pesticide Workgroup, Spring Meeting. Frankfort, KY.

Taylor, R.D. 2006. Reducing the Risks of Waterborne Illnesses and Improving Public Health in Gales Point, Belize. Rotary International Water Summit. Louisville, KY.

Taylor, R.D. January – April 2005 – April 2006. Kentucky Pesticide Workgroup: Assisting Farmers and Rural Communities in the Protection of Drinking Water Supplies. In Cooperation with Kentucky Department of Agriculture. Five Regional Best Management Practices Workshops in Kentucky.

Taylor, R.D. January 2005. Implementing Source Water Protection Programs in Rural Agricultural Communities. *AWWA 2005 Source Water Protection Symposium*. Best Management Practices Workshop. Palm Beach Gardens, FL.

Taylor, R.D. 2004. Partnerships for Source Water Protection: Kentucky Case Studies. *AWWA Sources of Water Conference*. BMPs for Source Water Protection Workshop. Austin, Texas.

Taylor, R.D. 2003. Developing Partnerships for Source Water Protection in Agricultural Basins. *USEPA National Source Water Protection Conference*. Leveraging Rural Partnerships, Session C4. Washington, D.C. http://www.epa.gov/safewater/protect/conference/presentations.html#c4

Brooks, B., T. Riley, and R.D. Taylor. 2003. Water Quality of Effluent Dominated Ecosystems: Ecotoxicological, Hydrological, and Management Considerations. *North American Benthological Society, 5th International Poster Session Conference, Aquatic Ecosystems and Organisms*. Invited distant participants. Moscow, Russia.

Taylor, R.D., P. East, and A. Lange. October 2002. The Utility Management Institute: Providing Opportunities for Capacity Development of Small Water Systems. Association of State Drinking Water Administrators, Annual Conference. Invited speaker. Salt Lake City, Utah.

Taylor, R.D. April 2002. Assisting Small Systems in Capacity Development: the Technical Assistance Center for Water Quality at Western Kentucky University. EPA Region 4, State Water Administrators Workshop. Atlanta, GA.

Taylor, R.D. April 2002. The Utility Management Institute and On-line Courses for Water Utility Managers. EPA Region 4 and 6, Capacity Development Workshop. Dallas, TX.

Taylor, R.D. April 2002. The Utility Management Institute and On-line Courses for Water Utility Managers. EPA Region 4 and 6, Capacity Development Workshop. Dallas, TX.

Taylor, R.D. January 2002. Storm Water Management in Warren County, Kentucky. Warren County Planning and Zoning Commission, Training Session. Warren County KY Planning and Zoning.

**Vijay Golla, PhD, MPH**

(Underlined names represent student mentees.)

Cecilia Watkins, Gretchen Macy, Vijay Golla, Grace Lartey, Jacqueline Basham. The "Total Worker Health" Concept: A Case Study in a Rural Workplace," Journal of Occupational and Environmental Medicine. Vol. 60, No. 5, May 2018.

Macy G, Watkins C, Lartey G, Golla V. Depression Screening, Education, and Treatment at the Workplace: A Pilot Study Utilizing the CDC Health Scorecard. Journal of Workplace Behavioral Health. February 2017.

Jonathan Suhl, Vijay Golla, Jessica Rinsky, and Claudia Hopenhayn. Atrazine in Kentucky Drinking Water: Inter-Method Comparison of U.S. EPA Analytical Methods 507 and 508.1. Journal of Environmental Health. Volume# 79.5, Page # E1-E6. December 2016.

Cecilia Watkins, Gretchen Macy, Grace Lartey, Vijay Golla. Kentucky Worksite Health Promotion 2014 Survey Results. International Journal of Workplace Health Management. Vol 9, No. 4, pp.398-410, 2016.

Vijay Golla, Brian Curwin, Wayne Sanderson, and Marcia Nishioka, "Pesticide Concentrations in Vacuum Dust from Farm Homes: Variation between Planting and Nonplanting Seasons," ISRN Public Health, vol. 2012, Article ID 539397, 10 pages, 2012. https://doi.org/10.5402/2012/539397.

Jessica L. Rinsky, MPH; Claudia Hopenhayn, MPH, PhD; Vijay Golla, PhD, MPH; Steve Browning, PhD and Heather M. Bush, PhD: Atrazine Exposure in Public Drinking Water and Preterm Birth. Public Health Reports, 127(1):72-80. January 2012.

Vijay Golla, Jerrod Nelms, Ritchie Taylor, Sandeep Mishra. Pesticide Concentrations in Drinking Water from Farm Homes: Variation between Community Water Supply and Well-Water. Journal of Environmental Science and Engineering. 5:453-459. August 2011.

Stephen J. Reynolds, Jason Nakatsu, Marvin Tillery, Thomas Keefe, John Mehaffy, Peter S. Thorne, Kelley Donham, Matthew Nonnenmann, Vijay Golla, Patrick O'Shaughnessy. Field and Wind Tunnel Comparison of Four Aerosol Samplers Using Agricultural Dusts. Annals of Occupational Hygiene 2009; doi: 10.1093/annhyg/mep021.

Cecilia M. Watkins, Grace K. Lartey, Vijay Golla, Jagdish Khubchandani. Worker's Perception: Environmental Factors Influencing Obesity at the Workplace. American Journal of Health Studies, 23 (2):74-80 2008.

Patrick T. O'Shaughnessy, Julie Lo, Vijay Golla, Jason Nakatsu, Marvin I. Tillery, and Stephen Reynolds. Correction of Sampler-to-Sampler Comparisons Based on Aerosol Size Distribution. Journal of Occupational and Environmental Hygiene, 4: 237–245, April 2007.

Taylor R.D, Dickson K.L, and Golla V. Drought Induced Dissolved Oxygen Dynamics of an Effluent Dominated Stream Entering a Reservoir Backwater and Implications for Environmental Compliance. Environmental Informatics Archives, 4: 408-418, April 2006.

Golla V, Heitbrink W. Control Technology for Crystalline Silica Exposures in Construction: Wet Abrasive Blasting. Journal of Occupational and Environmental Hygiene, 1: D26-D32, March 2004.

Aditya Stanam, Vijay Golla, Shradha J. Vasa, Ritchie D. Taylor. Exposure to Computer work and Prevalence of Musculoskeletal Symptoms Among University Employees: A Cross-Sectional Study. (In Press, Journal of Environmental Health, ID: 2017-JEH-130).

Under Review

Hwang, J., R. Taylor, M. Cann, V. Golla, W. Gilbert. 2018. Assessment of Dielsel Particulates in Fire Departments Using Different Exposure Metrics: Pilot Study. Fire Safety Journal. (FISJ_2018_374).

Taylor, Ritchie; Macy, Gretchen; Hwang, Jooyeon; Golla, Vijay; Cann, Charles. 2018. Using Community Collaboration to Engage Firefighters in Rural Communities. The Journal of Rural Health. (JRH-2018-10-0311).

Hwang, J., R. Taylor, G. Macy, M. Cann, and V. Golla. 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants. Journal of Occupational and Environmental Hygiene. (ID: JOEH-17-0132).

Hwang, J., R. Taylor, C. Cann, P. Norris, and V. Golla. 2018. Evaluation of accumulated polycyclic aromatic hydrocarbons and asbestiform fibers on firefighter vehicles: Pilot Study. Fire Technology. (FIRE-D-18-00209).

Taylor, R., V. Golla, and J. Basham. 2017. A Comparison of Hazardous Materials Commodity Flow Across the Urban to Rural Gradient in Five Kentucky Counties. Journal of Environmental Health. (Paper #: 2017-JEH-067).

TECHNICAL REPORTS

(Underlined names represent student mentees.)

Taylor, R., Basham, J., & Golla, V, "Pike County, Kentucky Hazardous Materials Commodity Flow Analysis: Final Report", September 2018.

Taylor, Ritchie D.; Brown, Jacqueline; Golla, Vijay, "Oldham County, Kentucky Hazardous Material Commodity Flow Study: Final Report", August 2017.

Taylor, Ritchie D.; Golla, Vijay; Brown, Jacqueline, "Shelby County Hazardous Material Commodity Flow Study: Final Report", August 2015.

Golla, Vijay; Taylor, Ritchie D.; Brown, Jacqueline; and Danny Blevins, "Rowan County Hazardous Material Commodity Flow Study: Final Report", August 2014.

Taylor, Ritchie D.; Golla, Vijay; Brown, Jacqueline; and Wesley Delk, "Montgomery County Hazardous Material Commodity Flow Study: Final Report", August 2014.

Golla, Vijay; Taylor, Ritchie D.; Brown, Jacqueline; Makinen, Bryan; Richards, Carl; and Makinen, Bryan, "Madison County, Kentucky, Hazardous Materials Commodity Flow Analysis: Final Report", August 2014.

Cecilia Watkins, PhD, MS, CHES, 1 Grace Lartey, PhD, MA, 1 Gretchen Macy, EdD, MPH, 1 Vijay Golla, PhD, MBBS, MPH, 1 Teresa Lovely, MS, CHES, 2," Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard", April, 2014.

Golla, Vijay; Taylor, Ritchie D.; Eagleson, Jacob; Givan, Ethan; and Payne, Richard, "Daviess County Hazardous Material Commodity Flow Study: Final Report", September 2013.

Taylor, Ritchie D.; Golla, Vijay; Eagleson, Jacob; Givan, Ethan; and Koerber, Larry, "Henderson County Hazardous Material Commodity Flow Study: Final Report", September 2013.

Golla, Vijay; Taylor, Ritchie D.; Suhl, Jonathan; Eagleson, Jacob; Chavan, Prachi; Grigsby, Roni; and Bottom, Jim, "Louisville / Jefferson County Hazardous Material Commodity Flow Analysis: Final Report", August 2012.

Golla, Vijay; Taylor, Ritchie D.; Stanam, Aditya; Chavan, Prachi; Ellis, Connie; Western Kentucky University College of Health and Human Services, Dept. of Public Health; Makinen, Bryan; Richards, Carl; and Madison County Local Emergency Planning Committee, "Madison County, Kentucky, Hazardous Materials Commodity Flow Analysis, Final Report", August 2011.

Taylor, Ritchie; Golla, Vijay; Myatt, Bob; Advani, Shailesh; Gole, Pragati; Nair, Rasmi; Brown, Jacqueline; Willis, Nate; and Barringer, Ellen, "Warren County, Kentucky Hazardous Materials Commodity Flow Analysis, Final Report", August 2010.

PEER-REVIEWED PRESENTATIONS

"Distribution and determinants of Telemedical care usage in California" at the American Public Health Association Annual Conference, San Diego, CA, November 12, 2018.

"Assessment of ergonomics in Indian dental practice" at the American Public Health Association Annual Conference, San Diego, CA, November 12, 2018.

"Exposure to Residual Polycyclic Aromatic Hydrocarbons (PAH) in Firefighter Vehicles" at the American Industrial Hygiene Conference and Exposition, Philadelphia, PA, May 21, 2018.

"Occupational Exposure to Endotoxins in Airborne Size-Based Particles in Kentucky's Equine Industry" at Southeastern Regional ERC (Education and Research Center) Symposium, Savannah, GA, April 3, 2018.

"Exposure to Computer Work and Prevalence of Musculoskeletal Symptoms Among University Employees: A Cross- Sectional Study" at American Public Health Association Annual Conference, Atlanta, Georgia, November 7, 2017.

"Trends of Oral Health Status in Rural Kentucky" at Kentucky Public Health Association Annual Conference, Owensboro, Kentucky, March 12, 2017.

"Occupational Exposure to Endotoxins in Airborne Particles in Kentucky's Equine Industry" at Southeast Center for Agricultural Health and Injury Prevention, University of Kentucky, Lexington, Kentucky, November 18, 2016.

"A Comparison of Hazardous Materials Flow in Five Kentucky Counties: Urban vs. Rural Gradient" at the American Industrial Hygiene Conference and Exposition, Baltimore, Maryland, May 25, 2016.

"Results of the Kentucky Worksite Assessment: Utilization of the CDC's Scorecard" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, April 16, 2014.

"Hazardous Materials Commodity Flow Analysis in Madison County, Kentucky" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, March 28, 2012.

"Hazardous Materials Commodity Flow Analysis: Warren County, Kentucky" at the American Public Health Association Annual Conference, Washington D.C, October 29 – November 2, 2011.

"Occupational Hazards Associated with the Dental Profession" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, March 30, 2010.

"Nanotechnology and Public Health" at the American Public Health Association Annual Conference, Philadelphia, Pennsylvania, November 7-11, 2009.

"Atrazine in Drinking Water: Exposure Assessment and Analysis" at the American Public Health Association Annual Conference, San Diego, California, October 25-29, 2008.

"An Integrated Approach for Source Water Protection and Awareness in Rural Agricultural Watersheds" at the American Public Health Association Annual Conference, Washington, DC, November 3-7, 2007.

"A Look at Preparedness for Possible Avian Influenza Outbreak" at Kentucky Public Health Association Annual Conference, Louisville, Kentucky, March 28, 2007.

"Correction of Sampler-to-Sampler Comparisons" at American Association for Aerosol Research (AAAR) Annual Conference, Reno, Nevada, September 2007.

"A Comparison of the Collection Characteristics of Size-Selective Samplers for Different Dust Types during Laboratory Trials" at the American Industrial Hygiene Conference and Exposition, Chicago, Illinois, May 13-18, 2006.

"Pesticide Levels and Absorbed Doses Inside Iowa Homes over Time: Farm Families' Potential Long-term Exposures" at Midwest Rural Agricultural Safety and Health Forum, Johnston, Iowa, October 2005.

## Gretchen Macy

PUBLISHED MANUSCRIPTS (* denotes student author)

C. Watkins, G. Macy, V. Golla, G. Lartey, & J. Basham (2018). "The Total Worker Health Concept: A Case Study in a Rural Workplace." *Journal of Occupational and Environmental Medicine:* 60(5): 387-391. 10.1097/JOM.0000000000001273.

G. Macy & C. Watkins (2017). "A Mixed Methods Analysis of Workplace Health Promotion at Small, Rural Workplaces." *American Journal of Health Studies:* 31(4): 232-242.

G. Macy, C. Watkins, G. Lartey & V. Golla (2017). "Depression screening, education, and treatment at the workplace: A pilot study utilizing the CDC Health Scorecard." *International Journal of Workplace Behavioral Health:* 32(1): 3-13: DOI: 10.1080/15555240.2017.1282826.

G. Macy, M. Noland, G. Lartey, C. Nagy, J. Bonaguro & G. English (2016). "Using the Theory of Planned Behavior to Predict Students' Intentions to Register as Organ Donors in the Future" *Transplant Journal of Australasia: 25*(3): 18-21.

C. Watkins, G. Macy, G. Lartey & V. Golla (2016). "Results of the CDC Health Scorecard Statewide Assessment." *International Journal of Workplace Health Management:* 9(4): 398-410. DOI: 10.1108/IJWHM.-05-2015-0024.

G. Macy, M. Noland, G. English, J. Bonaguro, C. Nagy & G. Lartey (2015). "Life Is Cool: Introduction to Organ Donation and Transplantation." *Journal of Health Education Teaching Techniques:* 2(2): 41-54.

R. Roka*, A. Michimi, & G. Macy (2015). "Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity." *High Blood Pressure and Cardiovascular Prevention:* 22(3): 265-273.DOI 10.1007/s40292-015-0106-3.

G. Macy, D. Shearer, & C. Hanshaw (2014). "Assessing Barriers to Provider Referrals to a Diabetes Education Program." *The Kentucky Nurse.* July, August, September: 5-6.

G. Macy, C. Nagy, J. Bonaguro, G. English, M. Noland, & G. Lartey (2013). "Evaluation of the Life Is Cool Program." *Transplant Journal of Australasia*: 23(1): 15-20.

TECHNICAL REPORTS

C. Watkins, G. Lartey, G. Macy, V. Golla, & T. Lovely.
"Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Published March, 2014.

C. Nagy, G. Macy, J. Bonaguro, G. English, & G. Lartey. "The Evaluation of the Life Is Cool Program." Published November, 2011.

ACCEPTED MANUSCRIPTS

MANUSCRIPTS UNDER REVIEW (* denotes student author)

G. Macy, J. Hwang, R. Taylor, V. Golla, C. Cann & A. Murphy. "Examining Behaviors Related to Increased Exposures Among Rural Firefighters." Submitted to *Public Health Perspectives* on October 25, 2018.

R. Taylor, G. Macy, J. Hwang, V. Golla, & C. Cann. "Using Community Collaboration to Engage Firefighters in Rural Communities." Submitted *Journal of Rural Health* on October 17, 2018.

G. Macy, A. Murphy, M. Ickes, C. Watkins & B. Gates*. "Examining Factors Predicting Perceived Impact of Designated Use and Tobacco-free Policies on a University Campus." Submitted *American Journal of College Health* on August 10, 2018.

A.K Dispennette*, K.J Crandall, M. Shake, M, Schafer, & G. Macy. "Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults." Submitted to *Health Education and Behavior* on October 4, 2018.

E. Aghenta*, G. Macy, G. Lartey, & D. Shearer. "Examining Physical Activity Among College Students Using the Theory of Planned Behavior." Submitted *American Journal of Health Studies* on March 26, 2018.

J. Hwang, R. Taylor, G. Macy, M. Cann, V. Golla. "A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants." Submitted *Journal of Community Health* on January, 2018.

PRESENTATIONS

2018

J. Scott, C. Watkins & G. Macy. "The Shift Toward Total Worker Health, Workplace Training and Community Partnerships." Workers Compensation Institute. Orlando, FL. August 21, 2018.

C. Watkins, G. Macy, & R. Taylor. "Integration of Health Promotion and Health Protection: The Total Worker Health Concept on a University Campus." Bowling Green, KY. June 20, 2018.

G. Macy & C. Watkins. "Behavior Change: Logan Aluminum." Russellville, KY. March 8, 2018.

R. Taylor, J. Hwang, G. Macy, C. Watkins, J. Basham. "Firefighter Research Agenda." Firefighter Training School. Owensboro, KY. February, 2018.

2017

G. Macy & A. Murphy. "Qualitative and Mixed Methods Research." College of Health and Human Services Research Workshop. Bowling Green, KY. October 25, 2017.

J. Hwang, R. Taylor, M. Cann, G. Macy, and V. Golla. 2017. A Mixed-Methods Approach to Assessing Exposure of Firefighters in Kentucky to Fire Smoke and Occupational Air Contaminants Council of State and Territorial Epidemiologists. 6th Annual Southeastern States Occupational Network (SouthON) Meeting. Nashville, TN. April 6, 2017.

2016

C. Watkins, G. Macy, G. Lartey, & V. Golla. "Barrier Busters to Worksite Health Promotion Programs." 2nd Annual Healthy Worksite Wellness Summit, Bowling Green, KY, April, 27, 2016.

2015

C. Watkins, G. Macy. "Action Plans for Worksites." Healthy Worksite Wellness Summit, Bowling Green, KY, April, 29, 2015.

2014

R. Roka*, A. Michimi, & G. Macy. "Body mass index and waist circumference as a predictor of hypertension in U.S. adults: a comparative analysis by gender and race and ethnicity." Accepted for American Public Health Association Conference, New Orleans, LA, November, 2014.

C. Watkins, G. Macy, G. Lartey, & V. Golla.. "Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Centers for Disease Control and Prevention, Atlanta, GA, June 19, 2014.

C. Watkins, G. Lartey, G. Macy & V. Golla.. "Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

C. Watkins, G. Lartey, G. Macy & V. Golla.. "Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard." Kentucky Department for Public Health, Frankfort, KY, April 11, 2014.

E. Aghenta*, G. Macy, G. Lartey, & D. Shearer. "Using the Theory of Planned Behavior to Explain Physical Activity Among College Students." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

M.Perkins*, E. Aghenta*, G. Lartey, & G. Macy. "Self-esteem among south central Kentucky college students." Kentucky Public Health Association Conference, Louisville, KY, April 16, 2014.

2014

G. Macy. "Evaluating the Community Health Improvement Plan; Healthcare." Workshop for Healthcare Stakeholder Group of Barren River Community Health Planning Council. November 12, 2013.

2013

Organized and Introduced panel for WKU's Weight of the Nation Panel on the obesity epidemic. October, , 2013. Western Kentucky University, Bowling Green, KY.

Prior to 2013

G. Macy. "The Life Is Cool Program." Research Symposium for Jackson State Faculty, Bowling Green, KY. April 30, 2012.

G. Macy. "Body Mass Index (BMI); School Based Data Collection." School Nurse Conference, Barren River District Health Department, Bowling Green, KY. July 2011.

G. Macy. "Etiology and Prevention of Anterior Cruciate Ligament Tears." Exercise Physiology Major Symposium, University of Louisville, Louisville, KY. February 2003.

<u>POSTER PRESENTATIONS (*denotes student author)</u>

Dispennette, K.A*., Crandall, K.J., Schafer, M., Shake, M., Macy, G., & Clark, B. Effects of Bingocize® on quality of life and fall risk in community –dwelling older adults. Midwest American College of Sports Medicine Conference, November 9-10, 2018.

G. Macy, A. Murphy, M. Ickes, C. Watkins, & B. Gates*. "Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy." American College Health Association Annual Meeting, Washington, D.C., May 31- June 1, 2018.

B. Gates*, G. Macy, C. Watkins, A. Murphy, & M. Ickes. "Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies." Kentucky Public Health Association Conference, Covington, KY, April 28, 2018.

B. Gates*, G. Macy, C. Watkins, A. Murphy, & M. Ickes. "Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies." College of Health and Human Services Research Showcase, Bowling Green, KY, March, 30, 2018.

G. Macy, A. Michimi, & S. Seshadri, "Barren River Initiative to Get Healthy Together (BRIGHT) Project." College of Health and Human Services Research Showcase, Bowling Green, KY, March, 2016.

G. Macy, A. Michimi, S. Seshadri, J. Golden, K. Carter, & M. Noall, "Barren River Initiative to Get Healthy Together (BRIGHT) Project." Kentucky Public Health Association Conference, Owensboro, KY, April, 2015.

G. Macy, C. Nagy, J. Bonaguro, G. English, & G. Lartey. " Evaluation of the Life Is Cool Project." American Public Health Association Conference, San Francisco, CA October 29, 2012.

G. Macy, C. Nagy, J. Bonaguro, G. English, & G. Lartey "The Life Is Cool Project." Kentucky Public Health Association Conference, Louisville, KY. March 29, 2012.

RESEARCH INVOLVING STUDENTS IN 2017-2018

MANUSCRIPTS

G. Macy, A. Murphy, M. Ickes, C. Watkins & B. Gates*. "Examining Factors Predicting Perceived Impact of Designated Use and Tobacco-free Policies on a University Campus." Submitted *American Journal of College Health* on August 10, 2018.

A.K Dispennette*, K.J Crandall, M. Shake, M, Schafer, & G. Macy. "Effects of a game-centered health promotion program on fall risk, health knowledge, and quality of life in Community-Dwelling Older Adults." Submitted to *Health Education and Behavior* on October 4, 2018.

PRESENTATIONS

G. Macy, A. Murphy, M. Ickes, C. Watkins, & B. Gates*. "Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy." American College Health Association Annual Meeting, Washington, D.C., May 31- June 1, 2018.

B. Gates*, G. Macy, C. Watkins, A. Murphy, & M. Ickes. "Differences Between Faculty/Staff and Students on Tobacco Use and Perceived Impact of Tobacco Policies." Kentucky Public Health Association Conference, Covington, KY, April 28, 2018.

**Edrisa Sanyang, Ph.D.**

Peer-Reviewed Publications

Bass P, Sanyang E, Mau-Roung L (2018). "Risk Factors for Violent Injuries and Their Severity Among Men in The Gambia". American Journal of Men's Health. https://doi.org/10.1177/1557988318794524

Sanyang E, Peek-Asa C, Young T, Fuortes L (2017). Child Supervision and Burn Outcome among Admitted Patients at Major Trauma Hospitals in the Gambia. Int J Environ Res Public Health. 2017 Jul 30;14(8). pii: E856. doi: 10.3390/ijerph14080856. PubMed PMID: 28758942.

Sanyang E, Peek-Asa C, Bass P, Young TL, Jagne A, Njie B (2017). "Injury factors associated with discharge status from emergency room at two major trauma hospitals in The Gambia, Africa". Injury. 2017 Apr 5. pii: S0020-1383(17)30201-2. doi: 10.1016/j.injury.2017.03.048. [Epub ahead of print] Review. PubMed PMID: 28408082.

Sanyang E, P.-A. C., Bass P, Young T.L, Daffeh B, Fuortes L.J, (2017). "Risk factors for road traffic injuries among different road users in The Gambia." Hindawi Journal of Enviornmental and Public Health, 2017: 1 - 9.

Wallis, A. B. and Sanyang, E (2017). "New era for health in The Gambia" Lancet 389(10084): 2101-2102.

Sanyang, E., J. Butler-Dawson, M. A. Mikulski, T. Cook, R. A. Kuye, K. Venzke and L. J. Fuortes (2016). "Environmental and occupational health needs assessment in West Africa: opportunities for research and training." International Journal of Public Health 62(2): 317-325.

Murphy, M. W., Sanderson, W.T., Birch, M.E., Liang, F., Sanyang, E., Canteh, M., Cook, T.M., Murphy, S.C (2012). "Type and Toxicity of Pesticides Sold for Community Vector Control Use in The Gambia." Epidemiology Research International 2012.

Sanneh, E.S., Hu, A.H., Chang, Y.M., Sanyang, E (2011). "Introduction of a recycling system for sustainable municipal solid waste management: a case study on the greater Banjul area of the Gambia." Environ. Dev. Sustain. 13, 1065–1080.

Manuscripts Under Review

Sanyang E, Peek-Asa C, Young T, Bass P, Jagne A, Fuortes L. Personal and Injury Characteristics associated with transfer status and time to definitive care hospitals in The Gambia. International Journal of Environmental Research and Public Health.

Yu W.Y, Bass P, Sanyang E, Lin M.R. "Risk Factors for Recurrent Violent Injuries among African Men in The Gambia". Journal of Community Health.

Bass P, Sanyang E, Lin M.R. Risk Factors for Injury from Physical Violence and its Severity among Women in The Gambia. The Injury Journal.

Manuscripts in Progress

Keum C, Sanyang E, Bass P, Ndow B, Fourtes L, Hammann C, Peek-Asa C. Road traffic crashes and injury severity among pedestrian in Greater Banjul Area, The Gambia. Journal of Global Health: Science and Practice.

Butler-Dawson J, Kuye RA, Sanyang E, Rohlman DS, and Thorne PS. Neurobehavioral effects associated with low-level exposure to pesticides in The Gambia. Journal of Occupational and Environmental Medicine.

Alamu J, Sanyang E, Njie B, Dungey KE, and Kuye RA. Cross sectional epidemiologic study of well-water quality and prevalence of gastroenteritis in a developing country. Journal of Environmental Highlights.

## CECILIA WATKINS, Ph.D., C.H.E.S.

PUBLICATIONS

Books Published:

Watkins, C M. Lifestyle and Longevity: A Comparison of Seventh-day Adventist College Students and State College Students. *Lambert Academic Publishing, Koln, Germany.* 2009. 143p.

Articles Published:

Watkins, C., Macy, G., Golla, V., Lartey, G., Basham, J., (2017). The "Total Worker Health" Concept: A Case Study in a Rural Workplace. *Journal of Occupational and Environmental Medicine, (2017) doi:10.1097/JOM.0000000000001273*

Macy, G., Watkins, C., Lartey, G., & Golla, V. (2017). Depression screening, education, and treatment at the workplace: A pilot study utilizing the CDC Health Scorecard. *Journal of Workplace Behavioral Health*, *32*(1), 3-13. doi: 10.1080/15555240.2017.1282826

Haughtigan, K., Main, E., Bragg-Underwood, T., & Watkins, C. (2017). Occupational Skin Disease Prevention: An Educational Intervention for Hairdresser Cosmetology Students. *Workplace Health & Safety*, 2165079917704447.

Macy, G., & Watkins, C. (2016). A Mixed Methods Analysis Of Workplace Health Promotion At Small, Rural Workplaces. *American Journal of Health Studies*, *31*(4).

Watkins, C. M., Macy, G., Lartey, G., & Golla, V. (2016). Kentucky worksite health promotion 2014 survey results. *International Journal of Workplace Health Management*, *9*(4), 398-410. doi.org/10.1108/IJWHM-05-2015-0024

Watkins, C., & English, G. (2015). Moving the worksite health promotion profession forward: is the time right for requiring standards? A Review of the Literature. *Health Promotion Practice.* 2015 Jan;16(1):20-7. doi: 10.1177/1524839914547759.

Nicholson, T. J., Duncan, D. F., White, J. B., Watkins, C. M. A Proposed New Direction for Drug Policy. *Drugs: Education, Prevention and Policy*. 2012; 19(4):303-308.

Mishra, S., Thind, H., Gokarakond, S., Lartey, G., Watkins, C., Chahal, M. (2011). Second-Hand Smoke On A University Campus In A Tobacco-State: Perceptions And Attitudes Of Faculty, Staff And Students. *Journal of International Health Education*. 2011 March; 4(1):21-27.

Watkins, C., White, J., Duncan, D., Wyant, D., Nicholson, T., Khubchandani, J., Lakshminarayana, C. (2010). Consumer-Directed Health Insurance vs. Managed Care: Analysis of Health Care Utilization and Expenditure Incurred by Employees in a Rural Area. *Research In The Sociology of Health Care.* 2010; 28:197-214. DOI: 10.1108/S0275-4959(2010)0000028011

Khubchandani, J., Nagy, C., Watkins, C. & Nagy, S. University Employees Work Related Stress. *American Journal of Health Studies*. 2009; 24(2):306-313.

Watkins, C., Lartey, G., Golla, V. & Khubchandani, J. Workers' Perceptions; Environmental Factors Influencing Obesity At the Workplace. *American Journal of Health Studies.* 2008; 23(2):74-80

Watkins, C., Wainright, C., (2005). Logan Aluminum, A Dynamic Approach To Worksite Health Promotion. *Wellness Council Of America (WELCOA).*

State Reports Published:

Watkins, C., Lartey, G., Macy, G., Golla, V. (2014) Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard. A Kentucky State Report.

Lovely, T, Watkins, C. A Rapid Health Impact Assessment of the Proposed Worksite Wellness Tax Credit (HB 74). A Kentucky State Report. February, 2012.

PRESENTATIONS

Watkins, C. Achieving a Healthier Campus by Going Tobacco-Free, WKU Tobacco-free Taskforce Meeting, Sept 5, 2018.

Watkins, C., Macy, G. Workers' Compensation Educational Conference, Orlando, FL. The Shift Towards Total Worker Health, Workplace Training and Community Partnership. August 19 – 22, 2018.

Macy, G., Murphy, A., Ickes, M., Watkins, C., & Gates, B. "Assessment of awareness and comparison of the perceived impact of designated use areas to a 100% tobacco free campus policy." American College Health Association Annual Meeting, Washington, D.C., May 31- June 1, 2018.

Watkins, C., Macy, G. Logan Aluminum, Behavior Change. Logan Aluminum Management Meeting. March, 8, 2018.

Watkins, C., 3rd Annual Roadmap To A Healthy Workplace Summit, Barren River Initiative To Get Healthy Together (BRIGHT) Coalition Meeting. November 15, 2017.

Watkins, C., Macy, G. Lartey, G., Golla, V. (2016). Wellness Summit: Roadmap to a Health Workplace. Results & Recommendations of the 2014 Kentucky Worksite Assessment: Utilization of the CDC's Health ScoreCard. Bowling Green, Kentucky. April 27, 2016.

Watkins, C., (2016). CHHS Podium Presentations, A CHHS REACH Event. Results & Recommendations of the 2014 Kentucky Worksite Assessment: Utilization of the CDC's Health ScoreCard. April 20, 2016

Watkins, C., (2015). NIOSH, Total Worker Health (TWH) Affiliation Colloquium. Panel Discussion. Washington D.C.

Watkins, C., (2015). Bost Health Policy Forum. Panel Discussion on Worksite Wellness in Kentucky. Bowling Green, Kentucky.

Watkins, C., Macy, G. (2015). Wellness Summit: Roadmap to a Health Workplace. Planning for Success (Breakout Session). Bowling Green, Kentucky.

Watkins, C., Lartey, G., Macy, G., Golla, V., Lovely, T. (June 18, 2014) Center for Disease Control and Prevention (CDC). Results of the Kentucky Worksite Assessment: Utilization of the CDC's ScoreCard. Atlanta Ga.

Watkins, C., Lartey, G., Macy, G., Golla, V., Lovely, T. (April 16, 2014) Kentucky Public Health Association 2014 Conference. Results of the Kentucky Worksite Assessment: Utilization of the CDC's ScoreCard. Louisville KY.

Watkins, C., Lartey, G., Macy, G., Golla, V., Lovely, T. (April 11, 2014) Kentucky Department for Public Health Leadership. Results of the Kentucky Worksite Assessment: Utilization of the CDC's ScoreCard. Frankfort, KY.

Watkins, C., (October 7, 2013) Weight of the Nation. Panel on Obesity. Gary Ransdell Hall Auditorium.

Watkins, C., (August 20, 2013) Weight of the Nation Town Meeting. Worksite Wellness Segment. Bowling Green Junior High School.

Watkins, C., English, G. (February 27, 2013) Kentucky Wellness Conference. The Need for Standards and a Competent Workforce in Worksite Health Promotion. Lexington, KY.

Watkins, C., Lovely, T. (January 9, 2013) ASTHO Webinar Presentation: Kentucky Department for Public Health HIA of Proposed State Worksite Wellness Bill.

Lovely, T., Watkins, C. (February 8, 2012). Proposed Kentucky Worksite Wellness Tax Credit Review Findings: Impact of Childhood Obesity on Your Business. 4th Annual Kentucky Worksite Wellness Conference. Lexington, KY.

Watkins, C., Lovely, T. (April 4, 2012). HIA Findings Influence State Strategy to Address Childhood Obesity through a State Worksite Wellness Bill. National Health Impact Assessment Meeting, Washington D.C.

Watkins, C., Lovely, T. (August 19, 2011). A Rapid Health Impact Assessment of the Proposed Worksite Wellness Tax Credit (HB 74). Health Promotion Live, Webinar.

Watkins, C., Lovely, T. (August 18, 2011). A Rapid Health Impact Assessment of the Proposed Worksite Wellness Tax Credit (HB 74). Health Impact Training Workshop. Bowling Green Kentucky.

Azimipour, A., Watkins, C., (2010). Toothlessness in Kentucky: The Causes and the Remedies, Posters at the Capitol, Frankfort, Kentucky.

English, G., Watkins, C. (2010). Classroom Activities that Address Drug Use, Abuse and Addiction, The First International Conference on the Health Risk of Youth, Cancun, Mexico.

Watkins, C., (2008). Preparing Students to be Responsible Citizens, Engaging The Spirit Conference, WKU Campus.

Khubchandani, J., Nagy, C., Watkins, C. & Nagy, S. (2008). University Employees Work Related Stress, Kentucky Public Health Association Conference, Louisville KY.

Gilson, K., Boka, K., Watkins, C. (2008). Issues of Implementing a No-Smoking Policy in a Tobacco State: The Art of Diplomacy. Kentucky Public Health Association Conference, Louisville, KY.

Gilson, K., Boka, K., Watkins, C. (2008). Issues of Implementing a No-Smoking Policy in a Tobacco State: The Art of Diplomacy. Posters at the Capitol, Frankfort, KY.

Nagy, S., Watkins, C., Chauhan, S., Khubchandani, J., (2007). Fundamental Instructor's Training by American Red Cross in an Institutional Set UP, Kentucky Public Health Association Conference, Louisville, KY.

Diame, J., Nicholson, T., Watkins, C., (2007). Personal and Professional Health Behaviors of Public Health Educators, Kentucky Public Health Association Conference, Louisville, KY.

Nagy, S., Watkins, C., Khubchandani, J., Gokarakonda, S. (2007). HIV Awareness of Health Care Professionals ~ Yesterday and Today. Kentucky Public Health Association Conference, Louisville, KY.

Wyant, D., Jamode, S., Watkins, C., (2007). The Public Health Component in Health Care Administration Programs not based in Colleges of Public Health. The Annual Meeting of the Association of University Programs in Health Administration, Orlando, FL.

Rowland, C., Khubchandani, J., Watkins, C., (2007). Methodology of tapping workers Perceptions of Worksite Factors Influencing Physical Activity and Nutritional Habits. WKU 37th Annual Student Research Symposium.

Boka, K., Watkins, C., (2007). An Internship that Improves the Lives of Employees at Western Kentucky University. Kentucky Public Health Association Conference, Louisville, KY

Collins, C., Watkins, C., (2007). A Win-Win Situation: Worksite Health Promotion Project Provides Community Student Engagement While Filling Local Business Needs. Kentucky Public Health Association Conference, Louisville, KY.

Rowland, C., Khubchandani, J., Watkins, C., (2007). Methodology of tapping workers Perceptions of Worksite Factors Influencing Physical Activity and Nutritional Habits. Kentucky Public Health Association Conference, Louisville, KY.

Watkins, C., Khubchandani, J., Gokarakonda, S., Patel, P., (2007). HIV Awareness of Health Care Professionals in USA as compared to HIV Awareness of Health Professionals in India; Kentucky Public Health Association Conference, Louisville, KY

Boka, K., Watkins, C., (2007). An Internship that Improves the Lives of Employees at Western Kentucky University. WKU Students Present Research At Posters-At-The-Capitol, Frankfort, KY.

Gilson, K., Boka, K., Watkins, C. (2007). Issues of Implementing a No-Smoking Policy in a Tobacco State: The Art of Diplomacy. American Public Health Association Conference, Washington D.C.

Watkins, C., (2006). Best Practices for Student Success, The Challenges and Solutions to Engaging Students at a distance. WKU Engaging the Spirit.

Wyant, DK , Jamode S, and Watkins C. (2006). Approaches to Including Required Epidemiology in Health Management Curriculum The Annual Meeting of the Association of University Programs in Health Administration, (Poster) Seattle, Washington.

Collins, C., Watkins, C., (2006). A Win-Win Situation: Worksite Health Promotion Project Provides Community Student Engagement While Filling Local Business Needs. American Public Health Association Conference, Boston, MA.

Watkins, C., (2005). Enhancing Student Learning. WKU Engaging the Spirit

Watkins, C., *(2005).* Consumer-directed health insurance: A comparative analysis of three organizations and the potential effects on health care costs at the workplace. APHA Conference, Philadelphia, PA.

Watkins, C., *(2005).* Consumer-directed health insurance: A two-year review: Are the savings real? APHA Conference, Philadelphia, PA.

Watkins, C., *(2005).* Consumer-directed health insurance: A two-year review: Are the savings real? R.R. Donnelley, Glasgow, KY.

Watkins, C., *(2004).* Obesity Strategies In The American Workplace. APHA Conference, Washington, D.C.

Watkins, C., (2004). Obesity Strategies In The American Workplace. FitKy Leadership Council, Frankfort, KY.

Watkins, C., (2004). Worksite Health Promotion & Community Service Learning; The Perfect Partners. National Wellness Conference, Stevens Point, WI.

Watkins, C., (2003). Worksite Health Promotion & Community Service Learning; The Perfect Partners. APHA Conference, San Francisco, California.

Watkins, C., (2003). Worksite Health Promotion & Community Service Learning; The Perfect Partners. Community Service Learning Workshop, University of Kentucky.

Watkins, C., (2003). Worksite Health Promotion & Community Service Learning; The Perfect Partners. Kentucky Public Health Association Conference, Louisville, KY.

Dunn, D., Watkins, C., (1997). Wellness Programs In Small Industries. American Public Health Association Convention, New York, NY.

Contributions to Presentations:

White, J., Lovely, T., Watkins, C., (2005). "Affordable Healthcare: Cost-Saving Measures" Options to Lower your Costs, Partners for a Healthy Louisville and The Uninsured Coalition Conference, Louisville, KY.

RESEARCH IN PROGRESS

Tobacco-Free WKU Campus (Survey on attitudes of tobacco for faculty, staff) (Survey on marketing tobacco on campus for students)

**Grace K. Lartey, PhD**

PUBLICATIONS

Refereed Articles

Lartey, G., Garrett-Wright, D., & Sturgeon, L., Kabir, Y. & Eagle, S. (2018). A Survey of School Nurses' Perceptions of Complementary, Alternative and Integrative Therapies. *Journal of School Nursing, x*(x), xx-xx. Online: https://doi: 10.1177/1059840518770521

Garrett-Wright, D., Lartey, G., & Sturgeon, L. (2018). Kentucky School Nurses' Knowledge and Perceptions of Complementary, Alternative and Integrative Therapies. *Kentucky Nurse, x*(x), xx-xx. Accepted-In Press.

Sturgeon, L., Garrett-Wright, D., Lartey, G., Jones, S., Bormann, L., & House, S. (2018). A Descriptive Study of Bath Practices and Procedures in U.S. Acute Care Facilities. *American Journal of Infection Control, x*(x), xx-xx. Online: https://doi.org/10.1016/j.ajic.2018.07.007

Ejike, C., Capps, R., Lartey, G. & Ciochetty, D. (2018). Health-Seeking Behavioral Patterns among Refugee Groups: A Case-Study in Southcentral Kentucky. *Journal of Rural Health.* Under Review.

Ejike, C., Lartey, G., Capps, R., & Ciochetty, D. (2018). Relationship between Health-Seeking Cultural Patterns and the Use of Available Health Care Services among Refugee groups in South-Central Kentucky. *Journal of Health Care for the Poor and Underserved.* Under Review.

Ejike, C., Capps, R., Lartey, G. & Ciochetty, D. (2018). Influence of Culture on the Use of Healthcare Services by Refugees in South-central Kentucky: A Mixed Study. *Journal of Immigrant & Refugee Studies*. Under Review.

Aghenta, E., Macy, G., Lartey, G. & Shearer, D. (2018). Applying the Theory of Planned Behavior to Physical Activity Measures among College Students. *American Journal of Health Studies.* Under Review.

Sturgeon, L., Lartey, G., & Wright, D. (2018). Preparedness of Illinois School Nurses to Manage Complementary, Alternative, and Integrative Therapies for Students. *The Nursing Voice, 6*(1):10.

Watkins, C., Macy, G., Golla, V., Lartey, G. & Basham, J. (2018). The "Total Worker Health" concept: A case study in a rural workplace. *Journal of Occupational and Environmental Medicine, 60*(5): 387-391. doi: 10.1097/JOM.0000000000001273.

Macy, G., Watkins, C., Lartey, G., & Golla, V. (2017). Depression in the Workplace: Pilot Study Using the CDC Health Scorecard. *International Journal of Workplace Health Management, 32*(1): 3-13.

Macy, G., Noland, M., Lartey, G., Nagy, C., Bonaguro, J. & English, G. (2016). Using the Theory of Planned Behavior to Predict Intentions to Register as Organ Donors in the Future. *Transplant Journal of Australasia, 25*(3): 18-21.

Sturgeon, L., Garrett-Wright, D., Jones, S., Bormann. L, House, S. & Lartey, G. (2016). Dangerous Waters: An Exploration of Bathing Procedures in Kentucky's Acute & Long Term Care Facilities. *Kentucky Nurse, 64* (4).

Watkins, C., Macy, G., Lartey, G. & Golla, V. (2016). Kentucky Worksite Health Promotion 2014 Survey Results. *International Journal of Workplace Health Management, 9* (4): *398-410.*

Macy, G., Noland, M., English, G., Bonaguro, J., Nagy, C. & Lartey, G. (2015). Life is Cool: Introduction to Organ Donation and Transplantion. *Journal of Health Education Teaching Techniques*, *2*(2):41-54.

Macy, G., Nagy, C., Bonaguro, J., English, G., Noland, M. & Lartey, G. (2014). Evaluation of the Life is Cool Program: Impact on Student Knowledge, Family Discussion, and Intention to Register as Organ Donors. *Transplant Journal of Australia, 23*(1):15-20.

Michimi, Aki, Ellis-Griffith, G., Lartey, G., Ellis-Griffith, C. & Hunt M. (2014). Variability between Self-reported Diabetes and Measured Glucose among Health Screening Participants in South Central Kentucky. *Primary Care Diabetes, 8(1)*:31-38.

Abell, C., Jones, M. S., Williams, D. & Lartey, G. (2013). Measurement of Critical Thinking for the RN to BSN Student. *Kentucky Nurse, 61(3).*

Ibrahimou, B., Hamisu, S., English, G., Anozie, C., Lartey, G. & Dagne, G. (2012). Twins Born Over The Weekends: Are They At Risk For Elevated Infant Mortality? *Archives of Gynecology and Obstetrics, 286*, 1349-1355.

Mishra, S., Thind, H. K., Gokarakonda, S. B., Lartey, G., Watkins, C., & Chahal, M. (2011). Second-hand Smoke on a University Campus in a Tobacco-state: Perceptions and

Attitudes of Faculty, Staff and Students. *International Journal of Health Research*, *4*(1):21-27.

Lartey, G. K., Mishra, S., Odonwodo, D. E., Chitalu, C., Chafatelli, A. (2009).

Factors Influencing the Health Behaviors of International Students at a University.

*International Journal of Health Research, 2*, 131-138 (e224, 27-34).

Lartey, G., Habib, F., Ranapurwala, S., & Bowles, T. (2008). Health Departments' Activities in Promoting Motor Vehicle Safety among Children. *American Journal of Health Studies*, *23,* 124-129.

Watkins, C., Lartey, G. & Golla, V. (2008). Workers' Perception: Environmental Factors Influencing Obesity at the Workplace. *American Journal of Health Studies, 23*, 74-80.

Lartey, G. K., Price, J. H., Telljohann, S., Dake, J., & Yingling, F. (2007). Primary Grade Teachers' Perceptions and Practices Regarding Pedestrian Safety Education. *Journal of School Health, 77,* 265-272.

Lartey, G. K., Telljohann, S., & Price, J. H. (2007). State Mandated School Bus Safety Education on the Teaching of Bus Safety Education. *American Journal of Health Studies, 21,* 115-121.

Hendershot, C., Dake, J. A., Price, J. H., & Lartey, G. K. (2006). Elementary School Nurses' Perceptions of Student Bullying. *The Journal of School Nursing, 22*, 229-236.

Lartey, G. K. (2002). Factors Influencing the Health Behaviors of International Students at the University of Northern Iowa (unpublished masters' thesis).

Wilson, S. C., Davis, T. M., & Lartey, G. K. (2001). An Epidemic of Micro Scooter Injuries. *Pursuit, 3,* 8-9.

Rich, M., Lartey, G. K., & Bienfang, N. (June, 2002). Perception of Iowa Recycling Association Members on Association's activities. *I! Recycle,* 4.

Books

Lartey, G. & Balch, L. A. (2012). *Test bank* for Donatelle's Access to Health (12 ed.). Boston: Benjamin Cummings.

Technical Reports

Watkins, C., Lartey, G., Macy, G., Golla, V. & Lovely, T. (2014). Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Score Card.

Nagy, C., Macy, G., Bonaguro, J., English, G. & Lartey, G. (2012). Evaluation of the Life is Cool Program.

RESEARCH IN PROGRESS

Smith, L., Main, E. & Lartey, G. (2018). Kentucky House Bill 1 Impact on Prescribing Practices of Advance Practice Registered Nurses, Physicians, and Dentists.

Sturgeon, L., Wright, D., Lartey, G. & Jones, S. (2018). Assessment of Bathing Protocols in Acute Care Hospitals in Rhode Island.

SCHOLARLY PRESENTATIONS

Oral Presentations

Atunlese, O., Lartey, G., Alnakhli, K. & Alrashiedy, M. (2018). Basic First Aid & CPR Training. CHHS/AHEC Career Day, November 2, 2018. Western Kentucky University, Bowling Green, KY.

Lartey, G. (2018). Piaseman Association of USA, Inc. Better Education Series: Preparing for college. May 20th & June 3rd, 2018.

Lartey, G. (2018). Administering Research Questionnaire Using Software. CHHS Research Methods Workshop. April 30, 2018. Bowling Green, KY.

Lartey, G., Garrett Wright, D. & Sturgeon, L. (2018). School Nurses' Perceptions and Knowledge of Complementary, Alternative and Integrative Therapies. 21st Annual Research Day. Kappa Theta Chapter. Sigma Theta Tau International Honor Society of Nursing. April 13, 2018. Bowling Green, KY.

Lartey, G., Garrett Wright, D. & Sturgeon, L. (2017). Complementary, Alternative and Integrative Therapies and Today's World. Occupational Health Nurses Monthly/Quarterly Meeting, November 2017. Logan Aluminum, Russellville, KY.

Lartey, G. & PH 485 Class. (2017). Personal Infection Prevention and Control. CHHS/AHEC Career Day, November 3, 2017. Western Kentucky University, Bowling Green, KY.

Lartey, G. & Wright, D. (2015). Role of School Nurses in Complementary, Alternative and Integrative Medicine Use among Students in the Barren River District Health Department Region. 2015 Workshop for Barren River District Health Department School Nurses. Bowling Green, KY.

Watkins, C., Macy, G., Lartey, G. & Golla, V. (2014). Results of the Kentucky Worksite

Assessment: Utilization of the CDC's Health Scorecard. Centers for Disease Control and Prevention, Atlanta, GA.

Watkins, C., Lartey, G., Macy, G. & Golla, V. (2014). Results of the Kentucky Worksite Assessment: Utilization of the CDC's Health Scorecard. Kentucky Department for Public Health, Frankfort, KY.

Watkins, C., Lartey, G., Macy, G., Golla, V. & Lovely, Teresa. (2014). State-wide Assessment of Comprehensive Worksite Health Promotion Programs in Kentucky. 66th Annual Kentucky Public Health Association, Louisville, KY.

Perkins, M., Aghenta, E., Lartey, G. & Macy, G. (2014). Self-esteem Measures among College Students. 66th Annual Kentucky Public Health Association, Louisville, KY.

Aghenta, E. Macy, G., Lartey, G. & Shearer, D. (2014). Using the Theory of Planned Behavior to Explain Physical Activity among College Students. 66th Annual Kentucky Public Health Association, Louisville, KY.

Michimi, Aki, Ellis-Griffith, G., Lartey, G., Ellis-Griffith, C. & Hunt, M. (2013). Self-Reported Diabetes and Measured Glucose among Mobile Diabetes Screening Participants in South Central Kentucky: A Cross-sectional Study. 65th Annual Kentucky Public Health Association, Louisville, KY.

Jones, M. S., Abell, C., Williams, D. & Lartey, G. (2011). Measurement of Critical Thinking for the RN to BSN Student. Oral presentation at the Southern Nursing Research Society 25th Annual Conference in Jacksonville, Florida.

Lartey, G., Mkanta, W., Abrefa-Gyan, T., Singh, S., & Ansari, H. (2011). Racial Differences in Diagnosis among HIV/AIDS Female Veterans Receiving Care in Veterans Affairs Facilities. Oral presentation at the 138th Annual American Public Health Association Meeting and Exposition. November 6-10, Denver, CO.

Mkanta, W., Lartey, G., Mejia, M., Abrefa-Gyan, T., Singh, S., Ansari, H., Duncan, R. P. (2011). Duration of AIDS and Its Influence on Service Use for Serious Mental Illness, Anxiety and Sexual Disorders. Oral presentation at the 138th Annual American Public Health Association Meeting and Exposition. November 6-10, Denver, CO.

Blick, S., Lartey, G., & Houchin, L. (2008). Trends in Teen Pregnancy and a Practical Adaptation of an Abstinence Curriculum. At the Kentucky Teen Pregnancy Conference, Bowling Green, KY.

Mishra, S., Lartey, G. (2008). Factors Influencing the Health Behaviors of International

Students at a South Central Kentucky University. At the 60th Annual Convention of the Kentucky Public Health Association, Louisville, KY.

Lartey, G., Price, J. H., Telljohann, S., Dake, J., & Yingling, F. (2006). Primary Grade Teachers' Perceptions and Practices Regarding Pedestrian Safety Education. At the 80th Annual American School Health Association Conference, St. Louis, MO.

Lartey, G., Iyiegbuniwe, E., & Odonwodo, D. (2006). NGOs and Public Health in Africa: Health Promotion Programs to Reduce Diseases and Disabilities. At the 39th Annual Conference of the African Heritage Studies Association, Tampa, FL.

Poster Presentations

Cowles, M. & Lartey, G. (2018). Potential Impact of the New Medicaid Waiver on the Homeless Population. WKU Student Research Conference, Bowling Green, KY.

Patel, K. & Lartey, G. (2018). Dental Health Issues among Children with Physical Disabilities in India. WKU Student Research Conference, Bowling Green, KY.

Sujaya, T. & Lartey, G. & Hunt, Matthew (2017). Bone Mineral Density among Women in South Central Kentucky. Poster presentation 69th Annual KPHA Convention. March 11-13, 2017. Owensboro, KY.

Sujaya, T. & Lartey, G. (2017). Tuberculosis - The Threat is Real! Poster presentation at the 18th Annual Kentucky Rural Health Association Conference. August 25-26, 2017. Bowling Green, KY.

Sujaya, T. & Lartey, G. (2017). Tuberculosis - The Threat is Real! Poster Presentation at the 68th Annual KPHA Convention. April 14-16, 2016. Owensboro, KY.

Mandale,P., Bhoyar, S. & Lartey, G. (2010). Cultural Variation and its Effect on Student Teacher Interaction and Learning. Poster presentation at the 62nd Annual KPHA Convention. Louisville, KY.

Mandale,P., Bhoyar, S. & Lartey, G. (2010). Cultural Variation and its Effect on Student Teacher Interaction and Learning. Poster presentation at the 40th Annual WKU Student Research Conference. Bowling Green, KY.

Jones, M. S., Abell, C., Williams, D. & Lartey, G. (2009). Measurement of Critical Thinking for the RN to BSN Student. Poster presentation at the 2009 American Association of Critical Care Nurses Baccalaureate Education Conference in Chicago, IL.

Jones, M. S., Abell, C., Williams, D. & Lartey, G. (2009). Measurement of Critical Thinking for the RN to BSN Student. Poster presentation at the 12th Annual Nursing Research Day, Bowling Green, KY.

Mounce, A., Hall, Meredith, Ward, J. Francis, M., & Lartey, G. (2008). School Bus Safety Program for Bristow Elementary School. Poster presentation at the 38th Annual WKU Student Research Conference, Bowling Green, KY.

Murray, E., Kariman, M., Starkey, K., Clausen, K., Dandrigde, A., & Lartey, G. (2008). Pedestrian Safety Program for Dishman-McGinnis Elementary School. Poster presentation at the 38th Annual WKU Student Research Conference, Bowling Green, KY.

Williams, D., Bracewell, J., Deng, K., Bittel, K., & Lartey, G. (2008). Bicycle Safety Program for Safe-T-City Bowling Green. Poster presentation at the 38th Annual WKU Student Research Conference, Bowling Green, KY.

Willoughby, N., Johnson, R., Meeks, L., Lartey, G. (2008). Skateboarding Safety Program for Parker Bennett Curry Elementary School. Poster presentation at the 38th Annual WKU Student Research Conference, Bowling Green, KY.

Bowles, T., Shabbar, R., Lartey, G. & Habib, F. (2008). Selected Health Departments' Activities in Promoting Motor Vehicle Safety among Children. Poster presentation at the 60th Annual Convention of the Kentucky Public Health Association, Loisville, KY.

Lartey, G., Mishra, S., Odonwodo, D., Chitalu, C., & Chafatelli, A. (2007). International Students' Health: A Tool for Academic Success. Poster presentation at the FaCET 2007 Summer Conference, Bowling Green, KY.

Odonwodo, D., Mishra, S., Chitalu, C., & Chafatelli, A., & Lartey, G. (2007). Factors Influencing the Health Behaviors of International Students at the Western Kentucky University. Poster presentation at the 37th Annual WKU Student Research Conference, Bowling Green, KY.

**Xiuhua Ding, MD, PhD**

Research Interest

Alzheimer's disease, longitudinal data analysis, aging, cognitive decline and comorbidities

Award/Presentation

*Student poster presentation*, titled "Assessment of ergonomics among Indian dental practitioners" in 70th Annual Kentucky Public Health Association (KPHA) Conference in Covington, KY(2018)

*Student poster Presentation*, titled "Assessment of ergonomics among Indian dental practitioners" in American Public Health Association 2018 Annual Meeting in San Diego, CA(2018)

*Student poster Presentation*, titled "Assessment of ergonomics among Indian dental practitioners" in WKU student research conference in Bowling Green, KY(2018)

*Graduate Student Research Grant ($1918.13),* titled "Assessment of Ergonomics in Indian Dental Practice" by Divya Gadde

*Approved IRB application,* titled "comparison of teaching effectiveness in traditional class and online class and identifying factors may improve teaching effectiveness", PI: Xiuhua Ding & Co-PI : Harshitha Ponnala, EHS student

Poster Presentation, titled "Quality of life scores are associated with incidence of cognitive impairments: Results from PREADViSE" in Society for Epidemiologic Research (SER), Baltimore, MD (2018)

Poster Presentation, titled "Quality of life scores are associated with incidence of cognitive impairments: Results from PREADViSE" in Alzheimer's Disease International Conference (AICC), Chicago, IL (2018)

Oral presentation, titled "Comparison of trajectories of episodic memory for over 10 years between baseline normal and MCI ADNI subjects." in Society for Epidemiologic Research (SER) conference, Seattle, WA(2017)

Invited talk, titled "Introduction of Medical Research " for Western Kentucky University Heart & Lung Conference, Bowling Green, KY (2017)

Poster Presentation on CPH research day at University of Kentucky (2016)

Poster Presentation on Alzheimer's Disease Symposium at University of Kentucky (2015)

Award of participation of NGS workshop at University of Kentucky supported by Kentucky Infrastructure in Ecological Genomic Project (2013)

Oral and poster presentation on Genetic Analysis Workshop 18 (GAW18) , Stevenson, WA (2012)

Poster presentation on CPH research day at University of Kentucky (2012)

Travel Award for Genetic Analysis Workshop (GAW) 18 (2012)

Publication

Ding X, Abner E, Schmitt F, Kryscio R. Quality of life scores are associated with incidence of cognitive impairments: Results from PREADViSE. (*In process*)

Ding X, Charnigo R, Schmitt F, Kryscio R, Abner E. Comparison of trajectories of episodic memory for over 10 years between baseline normal and MCI ADNI subjects. (*In process*)

Ding X, Charnigo R, Schmitt F, Kryscio R, Abner E.Comparison between neural network and logistic regression in PREADViSE trial. (*In process*)

Jiang Y, Lin MK, Jicha GA, Ding X, Mclwrath SL, FARDO DW, Broster LS, Schmitt FA , Kryscio R, Lipsky RH.Functional. Functional human GRIN2B promoter polymorphism and variation of mental processing speed in older adults. Aging (Albany NY). 2017 Apr;9(4):1293-1306.

X. Zhang, F.A. Schmitt, A.M. Caban-Holt, Ding X, R.J. Kryscio, E. Abner. Diabetes mitigates the role of memory complaint in predicting dementia risk: Results from the Prevention of Alzheimer's Disease with Vitamin E and Selenium Study. *J Prev Alz Dis 2017;4(3):143-148*.

Ding X, Kryscio RJ, Turner JK, Jicha GA, Cooper GE, Caban-Holt AM, Schmitt FA, Abner EL. Sleep apnea and dementia risk: Findings from the PREADViSE Alzheimer's disease prevention trial. J Am Geriatr Soc. 2016 ;64(12):2472-2478.

Ding X, Su S, Nandakumar K, Wang X, Fardo D. A Two-Step Penalized Regression Method for Family-based Next Generation Sequencing Association (BMC Proceeding)

Ray DS, Wiemann AH, Patel PB, Ding X, Kryscio RJ, Miller CS. Estimation of the rate of tooth wear in permanent incisors: a cross-sectional digital radiographic study. J Oral Rehabil. 2015 Mar 10.

Miller CS, Foley JD 3rd, Floriano PN, Christodoulides N, Ebersole JL, Campbell CL, Bailey AL, Rose BG, Kinane DF, Novak MJ, McDevitt JT, Ding X, Kryscio RJ. Utility of Salivary Biomarkers for Demonstrating Acute Myocardial Infarction. J Dent Res. 2014 May 30; 93(7 suppl): 72S-79S.

Syndergaard B, Al-Sabbagh M, Kryscio RJ, Xi J, Ding X, Ebersole JL, Miller CS. Salivary biomarkers associated with gingivitis and response to therapy. J Periodontol. 2014 Aug;85(8):e295-303.

Bush ML, Osetinsky M, Shinn JB, Gal TJ, Ding X, Fardo DW, Schoenberg N.Assessment of Appalachian region pediatric hearing healthcare disparities and delays. Laryngoscope. 2014 Jul;124(7):1713-7.

Roedig JJ, Phillips BA, Morford LA, Van Sickels JE, Falcao-Alencar G, Fardo DW, Hartsfield JK Jr, Ding X, Kluemper GT Comparison of BMI, AHI, and apolipoprotein E ε4 (APOE-ε4) alleles among sleep apnea patients with different skeletal classifications.J Clin Sleep Med. 2014 Apr 15;10(4):397-402.

Yan W, Li N, Hu X, Huang Y, Zhang W, Wang Q, Wang F, Wang C, Zhai X, Xu R, Yan K, Ding X, Wang X. Reply to Manuscript IJC-D-12-04197 entitled "Does Alpha-lipoic Acid Treatment Play a Role on Oxidative Stress and Insulin Resistance in Overweight/Obese Patients?" by MD Turgay Ulas. International Journal Cardiology (2013).

Xu X, Ding X, Zhang X, Su S, Treiber FA, Vlietinck R, Fagard R, Derom C, Gielen M, Loos RJ, Snieder H, Wang X. Genetic and Environmental Influences on Blood Pressure Variability: A Study in Twins. J Hypertens. 2013; 31(4):690-7.

Yan W, Li N, Hu X, Huang Y, Zhang W, Wang Q, Wang F, Wang C, Zhai X, Xu R, Yan K, Ding X, Wang X. Effects of Oral ALA Supplementation on Oxidative Stress and Insulin Sensitivity among Overweight/Obese Adults: A Double-blinded, Randomized, Controlled, Cross-over Intervention Trial. International Journal Cardiology (2012).

Wang X, Ding X, Su S, Harshfield G, Treiber F, Snieder H. Genetic influence on blood pressure measured in the office, under laboratory stress and during real life. Hypertens Res. 2011 Feb; 34(2):239-44.

Wu T, Snieder H, Li L, Cao W, Zhan S, Lv J, Gao W, Wang X, Ding X, Hu Y. Genetic and environmental influences on blood pressure and body mass index in Han Chinese: a twin study. Hypertens Res. 2011 Feb;34(2):173-9.

Wang X, Ding X, Su S, Spector TD, Mangino M, Iliadou A, Snieder H. Heritability of insulin sensitivity and lipid profile depend on BMI: evidence for gene-obesity interaction. Diabetologia. 2009 Dec;52 (12):2578-84.

Wang X, Ding X, Su S, Yan W, Harshfield G, Treiber F, Snieder H. Genetic influences on daytime and night-time blood pressure: similarities and differences. J Hypertens. 2009 Dec; 27(12):2358-64.

Li Z, Snieder H, Su S, Ding X, Thayer JF, Treiber FA, Wang X. A longitudinal study in youth of heart rate variability at rest and in response to stress. Int J Psychophysiol. 2009 Sep;73(3):212-7.

Wang X, Ding X, Su S, Li Z, Riese H, Thayer JF, Treiber F, Snieder H. Genetic influences on heart rate variability at rest and during stress. Psychophysiology. 2009 May;46(3):458-65.

## Appendix 4: Environmental and Occupational Health Program Equipment Holdings (Selected)

1. One Metrosonics Indoor Air Quality Monitor
2. One Quest AQ5000Pro Indoor Air Quality Monitor
3. One Trimble Navigational Global Positioning System (GPS)
4. One Photovac Photoionization Detector
5. One MultiRAE plus Multi Gas Detector
6. One AreaRAE Multi Gas Monitor
7. One Horiba Water Quality Meter
8. One Hydrolab Submersible Flourometer/Water Quality Meter
9. One ARTI HHPC-6 Particulate Counter
10. Twenty SKC Personal Sampling Pumps (Aircheck)
11. One SKC Multi-Purpose Calibration Chamber
12. Four Drycal Calibrators (Bios International)
13. Two Deluxe Multi-Chargers
14. One Heat Stress Monitor
15. Two Toxi-plus CO Detectors
16. One TSI Veloci-Calc Meter
17. Two Bioaerosol Samplers with Hi-Vol Pump
18. One Millipore Laboratory Incubator
19. Five Metrosonics Personal Noise Dosimeters
20. Five Quest Personal Noise Dosimeters
21. One Foxboro Mobile Infrared Analyzer (Miran 1B)
22. One Portable Air Analyze (Miran Saphire)
23. One Zenith Pentium Notebook Computer
24. One National Instruments DAQ-700 PCMCIA Data Acquisition Card
25. One National Digital Microscope DC3-163
26. One Scientech Digital Scale
27. Visual Basic and Component Works Application Software
28. Five Metrosonics Personal Toxic Gas Monitors
29. Two Metrosonics Industrial Hygiene Data Loggers

30. Five Metrosonics Heat Stress Monitors
31. Ten Quest Noise Dosimeters
32. Two Quest Sound Level Meters w/Octive Band Analyzers
33. Two Quest Sound Level Meters
34. Full-array of environmental laboratory instrumentation (e.g. GC/MS, AAS, etc.)
35. Computer Resources and Databases in Environmental Health Science Laboratory
36. One Niton X-Ray Fluorescence Multichannel Analyzer
37. One Photovac Field Gas Chromatograph
38. One Portable Spectrophotometer
39. Three Water Monitoring Wells (Ag Farm)
40. One Solinst Oil/Water Interface Meter
41. One Solinst Photoionization Air Monitor
42. One ISC Multigas Meter (4 gases)
43. One Holiday ELF Radiation Meter
44. One Ludlum Ratemeter with Gamma and Alpha Detector
45. One MultiRAE PID/Multigas Combination Meter
46. Two Draeger Self-Contained Breathing Apparatus (SCBA)
47. One Light Meter (Luminescence)
48. Twelve SKC Personal Sampling Pumps
49. Two GPS Units
50. One Spherical Densiometer
51. One Guardian Biothreat Alert Monitoring System
52. TMX 412 Multi Gas Monitor
53. One CMS Emergency Response Kit/Gas Analyzer
54. One Voyager Portable Gas Chromatograph
55. One Radiation Alert Radiation Detector
56. One ppb-VOC Monitor
57. One TSI Particle Generator & N95 Companion
58. One Portable Organic Vapor Analyzer
59. One pH Meter
60. One Corning Centrifuge

61. One Trimex Moisture Meter
62. Two Compressed Air Respirator Equipment
63. Air Purifying respirators (various)
64. Compressed Gas Cylinders (various)
65. One Prime Air Gas Flow Calibrator
66. One Health-O-Meter Scale
67. Spirometers (various)
68. Impingers (various)
69. One TSI Optical Particle Sizer
70. One TSI Nanoscan Nanoparticle Sizer
71. One TSI Dusttrak Aerosol Monitor
72. One Drycal Defender Calibrator
73. Eight Casella Apex 2 Personal Air Pumps
74. Two Casella Pumps Kits
75. Ten Button Samplers
76. Ten Aluminum Cyclone Samplers
77. One Draeger HazMat Kit
78. Two Draeger Accuro Gas Detection Pumps