

Request for a New Credit Certificate Program

Campus: IUPUI

Proposed Title of Certificate Program: Certificate in Disaster Health Management

Projected Date of Implementation: Fall, 2016

This proposal is for a Certificate in Disaster Health Management to be offered by the School of Public and Environmental Affairs at Indiana University Purdue University Indianapolis. This certificate will introduce students to the interdisciplinary practice of disaster health management and prepare them to effectively anticipate, respond to, and manage the acute and chronic health consequences of natural and man-made disasters. A consortium of schools designed this certificate including SPEA, the Indiana University schools of Nursing and Medicine and the Fairbanks School of Public Health. The schools of Science and Liberal Arts will also offer elective courses for the degree.

I. Why a Certificate in Disaster Health Management is Needed.

Disasters resulting from human and natural causes are increasingly common. These events typically have both acute and chronic health consequences for both individuals and communities. In the face of these events, healthcare providers cannot completely suspend routine operations. Rather, they must simultaneously meet the acute challenges created by a disaster or epidemic while providing continuing care for the routine and ongoing medical needs in the community, often while dealing with the effects that the disaster conditions have taken on the provider's own facilities and staff.

Managing these competing demands requires specialized training and education. While emergency management education has become a popular subject at the graduate level, little attention has been paid to formal educational programs in the specialized area of disaster health management. Members of the healthcare emergency management community in Indiana and beyond recognize the need for a formal program of study in disaster health management. Yet, no school in the country has a program specifically designed to educate people working in this vital and growing area.

The School of Public and Environmental Affairs (SPEA) on the IUPUI campus currently offers the only formal graduate program in emergency management in the state. The IU Schools of Nursing (IUSON) and Medicine (IUSM) and the

Fairbanks School of Public Health also are engaged in substantial disaster health research, teaching, and service. Departments in the Schools of Science (Earth Sciences) and Liberal Arts (Medical Humanities) employ scholars whose teaching and research informs disaster health planning. Additionally, each of these academic units maintains active partnerships with public and private community entities working in public health and security. Faculty at these schools recognized an opportunity to develop an interdisciplinary community of scholarship around disaster health. This academic partnership will enrich our understanding of best-practice management of health institutions before, during and after a disaster. Students' educational experience will also be enhanced by the application of multiple disciplinary lenses to this work.

Advancing the Campus and University Mission

II. Curriculum:

We propose a fifteen credit-hour certificate that includes nine credits of required foundation classes (three classes) and six credit hours of electives. A detailed course list is included as Attachment A.

Students must have a bachelor's degree from an accredited college or university to apply. Students are required to complete and pass each of the individual courses with a grade of B- or higher. Students enrolled in this certificate program must complete 15 credit hours of SPEA approved course work with a minimum cumulative GPA of 3.0 (B).

The 3 required courses are:

<u>Course</u>	<u>Title</u>	<u>Credit Hours</u>
SPEA-J524	Emergency Management	3 Credits
PDHL-P 613	Public Health & Emergency Preparedness	3 Credits
NURS-J690	Introduction to Clinical Disaster Health	3 Credits

The SPEA and Public Health courses listed are currently offered on campus. The required nursing course will be offered during the 2016 spring semester as a variable title course. Upon acceptance of the certificate, the program intends to apply for a permanent number for this course. All courses will be available to all IUPUI graduate students subject to course availability. There are no prerequisites for the required courses.

Students may complete the remaining elective credits by choosing from the courses identified on the attached course list. Several courses incorporate clinical and field exercise opportunities within the course experience such as shadowing a care

provider during a shift in a hospital emergency room or a “ride-along” with an emergency responder. The field experience for most courses, including the required course, will be arranged and completed at a location convenient to the student. Consequently, distance students will be able to complete the program.

The elective courses will provide students the opportunity to self-select into one of three major program areas: clinical disaster healthcare, disaster related public policy, and healthcare emergency management. Elective offerings include courses already offered by participating schools. The attached curriculum document also identifies elective courses that academic units do not offer yet but that are under consideration by faculty. The proposed classes are included here to provide a sense of the natural growth opportunities for this area.

Degree Granting Unit: The School of Public and Environmental Affairs at Indianapolis will award the Certificate.

III. Learning Outcomes & Assessment

Students completing this certificate will be prepared to work in careers in health care, public health, and public safety that require the ability to prepare for and ensure continuity of healthcare operations during mass casualty events resulting from epidemics and natural and man-made disasters. Graduates will possess the knowledge and skills needed to work in disaster planning and to manage effectively in the chaotic period of disaster response.

The three required courses are designed to ensure that all students are versed in the basic operations and systems of disaster response. Courses in Emergency Management and Public Health Preparedness provide complete reviews of the public systems and private actors engaged in disaster planning, response and recovery, including, but not limited to, the role of health providers. The course entitled Introduction to Clinical Disaster Health will provide students with a deeper understanding of the nature of operations in emergency environments. This course includes required clinical experiences that will place students in emergency response environments such as hospital emergency departments or first responder vehicles.

Elective courses will allow students to build-out their degree by focusing on the particular skills needed in their current or desired line of work. Individuals whose job involves preparing for large public gatherings like rallies or sporting events may choose the course in on mass gatherings. Individuals working for government may be interested in a course in law and policy to better understand the range and limits of state and private action before, during and after a disaster or epidemic. The list of possible electives is intentionally broad to best suit student needs.

The specific delivery and assessment method for each course is identified within the course description. Courses may be offered in traditional, online or in hybrid format. Research papers, individual and group projects, cases studies, exams and proficiency at completing virtual and actual simulations are common methods of evaluation in the listed courses. Field experiences are evaluated considering the student's completion of the assigned preparatory and follow-up work, the student's demonstrated proficiency at any skills or tasks required to participate in the exercise and, frequently, the completion of a subsequent reflective piece.

III. Support for the Proposal

Disaster Health planning and response is done by employees and officials in public health and homeland security positions at all levels of government. In the public sector, jobs that require an understanding of disaster health management include EMS managers; public safety directors, and emergency planning and response managers. Health systems employees, including hospital, nursing and emergency room managers will also benefit.

Labor Market Demand: Demand for employees with disaster planning and response skills grows as more communities embrace emergency preparedness. According to the Bureau of Labor Statistics¹, the number of emergency managers will grow by 8.3% nationally, while the number of medical and health services administrators, many of whom are engaged in the planning and/or execution of disaster response plans, will grow by 23.2% over that same period. Better education for those who do this work, will mean increased safety and security in our communities at times when we are most vulnerable.

Cost: At this time, cost associated with this program would be *de minimus*. The courses making up the required core as well as the electives needed are currently being offered. New courses can be added by participating schools as they desire and their resources permit.

Support Letters: This graduate certificate will be awarded by the School of Public and Environmental Affairs. Letters of support, attached to this document, were submitted by the:

- School of Medicine, Department of Medicine;
- School of Nursing;
- School of Science, Department of Earth Sciences; and,
- Fairbanks School of Public Health.

Similar and Related Programs: There are no graduate-level programs offered on any campus in the Indiana University System similar to the proposed program.

¹ <http://data.bls.gov/projections/occupationProj>

SPEA offers the only graduate program the state in the area of disaster management. The Indiana University School of Medicine, Department of Emergency Medicine, recently launched a graduate fellowship in disaster medicine. This fellowship is available only to physicians and is focused on clinical skills, however, and does not compete with the proposed program.

A number of universities around the country teach courses and offer degrees in the general area of disaster planning, response, and recovery. None offer a certificate or degree focused on disaster health management. The proposed certificate is unique in the country and will be a great benefit to

Attachment A: Proposed Curriculum

Proposed Required Foundation Courses

Course	Cr	Term	Course Title	Course Description and Assessment
SPEA J524	3	Sp.	Emergency Management	<p>This course focuses on the philosophical and theoretical underpinnings of the emergency management profession and the principles that define effective practice. The starting points are current definitions of emergency management, the mission and vision of the profession, and “The Principles of Emergency Management” developed by the Emergency Management Roundtable in 2007. Students develop an understanding of all the four phases-mitigation, preparedness, response, and recovery and examine the concepts of hazard, risk, communication, and vulnerability. In addition, this course will examine the history, current issues, alternative career paths, the roles of local, state, and federal governments, and private and nongovernmental organizations in emergency management. Furthermore, the history, function, and challenges of the Department of Homeland Security and Federal Emergency Management Agency will be discussed. Finally, real world examples, case studies, exercises, and discussions will be used to encourage critical review of the philosophy and principles of emergency management. Students will be evaluated on exams, papers and case studies.</p>

PBHL-P 613	3	Sum.	Public Health Preparedness	<p>This graduate elective course is designed to familiarize students with emergency preparedness concepts for natural and man-made disasters. The course will also review biological agents used for terrorism in the past, and agents the Centers for Disease Control consider most likely to be used now. The content will be delivered via, seminar discussion, web based activities, CDs addressing bioterrorism, resources for infection control and key resources for further exploration. Other student opportunities include readings from past great works depicting responses to naturally occurring infectious disease or contemporary responses to disasters and terrorism/bioterrorism. Public health responses to emergency preparedness at local, state and federal levels will also be discussed. Students will be evaluated using exams and written exercises.</p>
NURS J690*	3	Sp.	Introduction to Clinical Disaster Health	<p>This course provides an introduction to clinical aspects of disaster healthcare, and is designed to accommodate licensed clinical providers (MDs, RNs, EMTs) as well as non-clinical students. Includes modules in trauma and medical management of disaster victims, management of CBRNE victims, disaster mental health, disaster epidemiology, and field triage.</p> <p>Course is offered online with a required weekend field experience. Students will be evaluated using exams and course projects as well as on the successful completion of the field experience and the post-experience reflective write-up.</p>

Electives Elective Courses

Students may select to take up to three 1-credit elective courses from the Disaster Health Certificate Program, or may take a traditional 3-credit course from the approved courses below to satisfy the elective requirement. [* indicates a new course]

Disaster Health Certificate Electives

Course	Cr	Term	Course Title	Course Description
SPEA J528	3	Sp.	Risk Analysis	An examination of theoretical foundations of risk analysis including the history of risk analysis, risk assessment, perception and communications; models for decision making, techniques for generating alternative courses of action and definitions of risk and opportunity within a context of local, state and federal regulatory guidelines, media and social context. Students will be graded through exercises employing the assessment tools covered in class.
SPEA J682	3	Sp. & Fall	Planning & Management	Methods and procedures involved in public safety planning and management. Administration and implementation of public policies in policing, courts, corrections, emergency management and homeland security. Organization, decision-making, evaluation and human resource issues of public policy.
SPEA J520	3	Sp. & Fall	Mapping	The use of geographic information systems to map locations of events and analyze patterns for decision making and facility location in areas of public safety including criminal justice, fire services, emergency management and homeland security; and the management and application of those systems.
SPEA J581	3	Sp.	Public Safety Law	Survey of historical development of Anglo-American law of public safety, including criminal law, civil remedies, administrative regulation of risk, and recent developments in employee and consumer safety. Emphasis on understanding legal theory and practice as basis for management decisions. Comparison of jurisprudential viewpoints and other disciplinary approaches to causation, prevention, and correction of public safety problems

PBHL H501	3	Fall & Sum.	U.S. Health Care System and Health Policy	<p>This web based course explores the U.S. health care system, policy development and ethical challenges. It examines the structure, components, organization and financing of the U.S. health care system. Basic ethical concepts and principles involved in health care delivery will be illustrated through case studies. The policy process at national, state and local levels will be analyzed using specific legislation, and related activities. The impact of major health care polices and legislation will be discussed.</p> <p><i>Online-Asynchronous</i></p>
PBHL P670 (will be E505)	1	Fall	Introduction to Public Health: Epidemiology	<p>This course will provide an introduction to the public health concentration Epidemiology. This online course begins with a broad overview of public health. Additional modules will be completed that examine key concepts of epidemiology.</p> <p><i>Online - Asynchronous</i></p>
PBHL 670 (will be H505)	1	Fall	Introduction to Public Health: Health Policy and Management	<p>This course will provide an introduction to the public health concentration Health Policy and Management. This online course begins with a broad overview of public health. Additional modules will be completed that illustrate key concepts in health policy.</p> <p><i>Online - Asynchronous</i></p>

PUBH H670	3	Fall	Public Health Law and Ethics	This course introduces ethics in population health-related programs, policymaking, professions and research. Because public health interventions focus on communities, as contrasted with individuals, they raise distinct and significant ethical questions from those raised in health services delivery (commonly addressed in fields such as medical ethics, bioethics and clinical ethics). Through examination of current, historic and potential cases -- including infectious disease outbreaks and bioterrorism threats, community health impact assessments, soda portion restrictions, and international public health research and programs -- students will increase their understanding of the ethical and human rights concerns in public health. Students also will learn how to analyze local, national and international public health policies and programs using numerous ethics-based frameworks, and will be more empowered to be critical contributors to the development, delivery and assessment of ethically sound public health interventions in their professional careers. Students will be evaluated using exams and research projects.
PUBH E517	3	Fall, Sp. & Sum.	Epidemiology	This course will introduce students to basic epidemiologic concepts including determinants of health and patterns of disease in populations, population health descriptive techniques, use of health indicators and secondary data sources. Students will gain an understanding of the role of epidemiology in developing prevention strategies and policy. Among the topics to be covered are measures of mortality and morbidity, design and analysis of observational studies, community health assessment and program evaluation. <i>Online Asynchronous (Summer), in person (Fall and Spring)</i>

PBHL 625	3	Sum.	Applied Public Health Campaigns and Social Marketing Strategies	This course will introduce students to the process of developing and evaluating public health campaigns. Students will incorporate various tools and strategies, including social marketing, to promote behavior change. Through individual assignments, group activities, and several guest speakers from the field, students will gain practical experience in the various phases of designing effective public health campaigns. This is an intensive summer course that culminates in poster presentations of the public health campaigns.
PBHL H670	3		Law & Public Health	Public health law is law that affects the health conditions of populations. Students will gain an understanding of how law defines, directs and limits the use of government power to affect the conditions of a population's health, and the sources and systems of laws affecting the public's health, including the U.S. and state constitutions, federal, state, local and tribal laws, administrative agency regulations, international agreements and treaties, and litigation and common law or judge made laws. Public health law also encompasses: injury control measures, laws governing epidemiological surveillance, and preparedness efforts for bioterrorism and pandemics. While state public health authority is broad, students will come to understand the limits of such authority. Students will be assessed using exams and papers.
HIST H509	3	Sp.	History of International Humanitarian Assistance	This course covers the history of international humanitarian assistance during the 19th and 20th centuries. Its focus is on the movements and activities that developed in wealthier countries (Europe and the U.S.) during this period that attempted to help those in other lands in need of assistance (e.g., food, shelter, medical care). These needs arose from a variety of causes, both natural and man-made, such as famine, flood, epidemics, earthquakes and volcanoes as well as wars and government oppression. The responses took many forms, governmental and non-governmental, in a world that underwent very dramatic changes during the nineteenth and twentieth centuries. Students are assessed using exams and research papers.

Proposed Electives / Possible Future Courses

Course	Cr	Term	Course Title	Course Description
*NURS [xxx]	1-2	Summer	Mass Gathering Healthcare	<p>This course provides an overview of contemporary practices in mass gathering healthcare, including planning, response and risk reduction. Participants may elect to take a 1 credit field experience in partnership with the White River State Park Summer Concert Series where plans will be developed, tested and implemented. Students will be evaluated based on their contributions to the project.</p> <p><i>Online – Asynchronous</i> <i>Clinical – Field Experience</i></p>
*NURS J690	1	Spring	Executive Healthcare Leadership in Disaster	<p>This course, designed exclusively for senior healthcare executives, provides advanced skill-building in executive leadership during crisis. Emphasis is placed on continuity of executive functions during disaster, executive interface with traditional hospital incident command systems, relationships with local/state/federal governments during disaster, and healthcare reimbursement during and following a disaster event. Students will be evaluated based on case studies and class projects.</p> <p><i>Online - Asynchronous</i></p>

*NURS J[XXX]	1-2	Sum.	Global Healthcare Emergency Management	<p>This course provides an intensive introduction to all-hazards healthcare emergency management in resource-depleted settings. Modules will include an introduction to global healthcare delivery, the role of governmental and non-governmental agencies in global healthcare delivery, conduct of hazard vulnerability analyses (HVA), and development of plans, procedures and protocols for emergency management.</p> <p>The course includes an optional 1 credit field experience working under faculty supervision on the emergency management program at the John F. Kennedy Memorial Medical Center in Monrovia, Liberia.</p> <p><i>1 Credit Didactic – Online</i> <i>1 Credit Clinical – International Field Experience and Associated In-Person Didactic</i></p>
*NURS [xxx] & SPEA	1	Sum.	Management of Blast and Ballistic Injuries	<p>This course provides an advanced review of the management of blast and ballistic injuries. Students are assessed using exams and simulation-based projects.</p> <p>This course may be taken as an additional credit with SPEA Forensic Blast course.</p> <p><i>Online with required field experience with SPEA [Forensic Blast] course.</i></p>
*SPEA Jxxx	1	Fall	Mass Fatality Management	<p>This course provides a thorough examination of the mass fatality management literature as well as a detail account of mass fatality incidents from all over the world. In addition, this course will discuss the challenges of mass fatality management using various case studies. Students will be evaluated using exams and course projects.</p> <p><i>Online - Asynchronous</i></p>

LETTERS OF SUPPORT



IUPUI

**RICHARD M. FAIRBANKS
SCHOOL OF PUBLIC HEALTH**

INDIANA UNIVERSITY
Indianapolis

June 16, 2015

Lilliard Richardson, PhD
Executive Associate Dean
IU School of Public and Environmental Affairs
Indiana University - Purdue University Indianapolis
801 W. Michigan Street, BS 4065
Indianapolis, IN 46202-5125

Dear Dr. Richardson,

I am writing to confirm that the IU Richard M. Fairbanks School of Public Health faculty will participate in the new Certificate in Disaster Health by offering courses that fulfill some requirements for the program. Several faculty in our school can provide courses relevant to this program, given their expertise in public health disaster preparedness and management.

It is my understanding that the certificate program will incorporate courses from several of the health schools on campus, making this a unique experience for students. Our campus is ideally situated and exceptionally capable of offering inter-professional programs such as this certificate. It will be a positive addition to the certificate options available to students at IUPUI.

Best,

Paul K. Halverson, DrPH, FACHE
Founding Dean and Professor
Richard M. Fairbanks School of Public Health

5 May 2015

Lillard Richardson
Executive Associate
Dean
School of Public and Environmental Affairs
IUPUI

Dear Associate Dean Richardson:

We are pleased to hear of the recent approval by SPEA faculty of the Certificate in Disaster Health. As you well know, understanding the effectiveness of disaster preparedness and response is critical to minimizing the human injury and loss. As an earth sciences program, we specialize in exploring and understanding the environmental processes and anatomy of disasters such as droughts, floods, earthquakes, volcanoes, and tsunamis. We embrace the concept of a curricular pathway for students to explore the broad range of fields that touch on disaster health, and thus give our enthusiastic support of the program and welcome the opportunity to further explore our role as a participant.

Sincerely,



Kevin Mandernack

May 13, 2015

Lilliard Richardson, PhD
Executive Associate Dean
School of Public and Environmental Affairs

Dear Dr. Richardson,

This letter will serve as my strong support for the proposed new Certificate in Disaster Health in the School of Public and Environmental Affairs.

Nearly daily we learn of devastating national and international disasters and their impact on our global community. Yet despite the frequency of these events, we have little formal training to support our colleagues who are asked to respond to these disasters. It is my firm belief that there is a strong and growing need for advanced education in disaster health. Further, I'm confident that codification of this instructional program will be highly subscribed and enhance the education of graduate students across multiple programs.

Disaster health is a new field that intersects with many disciplines and is a source for emerging scholarship and research. Indiana University has the opportunity to be at the forefront of this field given its many programs in various schools that impact disaster health. As healthcare providers who are often called upon to provide relief in disaster situations, the Department of Emergency Medicine's commitment to education in disaster health is substantial. We have recently created a post-graduate-level fellowship in Disaster Medicine and will continue to develop courses, training opportunities, and didactics all of which can serve to support and enhance this certificate program.

As members of an interdisciplinary partnership, faculty from the Department of Emergency Medicine have played a key role in this program's inception, however, they are joined by a diverse team of interdisciplinary educators. The design and development of this certificate program is an ongoing collaborative effort between SPEA, the School of Public Health, the School of Nursing, and the School of Medicine. When fully matured this program will stand as an excellent example of inter-disciplinary collaboration and will enhance the offerings of all schools involved.

Again, the department of Emergency Medicine is excited by the possibility of ongoing participation in such a unique and needed program. We pledge our support and content expertise to this endeavor. Please feel free to contact me if there are any questions. We look forward to working closely to see this become one of IU's preeminent certificate programs.

Sincerely,



Cherri Hobgood, MD, FACEP
Chair and Rolly McGrath Professor of Emergency Medicine
Indiana University School of Medicine

