USU
Uniformed Services University

PMB

INFORMATION HANDBOOK 2020-2021

THE DEPARTMENT OF PREVENTIVE MEDICINE AND BIOSTATISTICS
GRADUATE MEDICAL AND PUBLIC HEALTH PROGRAMS

Table of Contents

PMB GRADUATE PROGRAM 2020/2021 CALENDAR

Pre-Fall Session

Monday, 6 Jul 2020 – Orientation, Incoming PMB Graduate Students
Tuesday, 7 Jul 2020 – Pre-Fall Session Classes Begin
Friday, 17 Jul 2020 – PMB Orientation for Fall Quarter
Monday-Friday, 20 - 24 Jul 2020 – Registration for Fall Quarter Classes
Thursday, 13 Aug 2020 – Pre-Fall Session Classes End
Friday, 14 Aug 2020 – End of Session Recess

Fall Quarter

Monday, 17 Aug 2020 – Fall Quarter Classes Begin
Friday, 28 Aug 2020 – Last Day to Drop/Add Fall Courses
Monday, 7 Sep 2020 – Labor Day (Holiday)
Monday – Friday, 5-9 Oct 2020 – Registration for Winter Quarter Classes
Monday, 12 Oct 2020 – Columbus Day (Holiday)
Friday, 6 Nov 2020 – Fall Quarter Classes End
Monday – Tuesday, 9-10 Nov 2020 – End of Quarter Recess

Winter Quarter

Wednesday, 11 Nov 2020 – Veterans Day (Holiday)
Thursday, 12 Nov 2020 - Winter Quarter Classes Begin
Friday, 20 Nov 2020 - Last Day to Drop/Add Winter Courses
Thursday – Friday, 26-27 Nov 2020 - Thanksgiving Recess
Monday, 21 Dec 2020 – Friday, 1 Jan 2021 - Winter Recess
Monday, 18 Jan 2021 - Martin Luther King, Jr's Birthday (Holiday)
Monday – Friday, 25-29 Jan 2021 - Registration for Spring Quarter Classes
Thursday, 11 Feb 2021 - Winter Quarter Ends
Friday, 12 Feb 2021 – End of Quarter Recess

Spring Quarter

Monday, 15 Feb 2021 – President's Day (Holiday)
Tuesday, 16 Feb 2021 – Spring Quarter Classes Begin
Friday, 26 Feb 2021 – Last Day to Drop/Add Spring Courses
Monday – Friday, 22-26 Mar 2021 – Spring Recess
Monday – Friday, 19-23 Apr 2021 – Registration for Summer Quarter Classes
Wednesday, 12 May 2021 – Spring Quarter Ends
Thursday – Friday, 13-14 May 2021 – End of Quarter Recess

PMB Summer Session

Monday, 17 May 2021 - Summer Session Begins
Monday, 31 May 2021 - Memorial Day (Holiday)
Friday, 28 May 2021 - Last Day to Drop/Add Summer Courses
Monday – Tuesday, 7-8 Jun 2021 - Oral Presentations (MPH degree candidates)
Thursday, 17 Jun 2021 - Summer Session Ends
Thursday, 17 Jun 2021 – PMB Graduation Ceremony

PROGRAM BACKGROUND AND MISSION

The Uniformed Services University (USU) (http://www.usuhs.edu) was established by Congress in 1972 and was authorized to develop advanced degree programs in the various health sciences with a priority on preparing qualified individuals for careers as Medical Officers in the Uniformed Services. As the Nation's only federal institution for higher learning in the health sciences, it is committed to excellence in military medicine and public health during peacetime and during war, fulfilling a unique mission among Schools of Medicine within the United States.

The University's F. Edward Hébert School of Medicine and the Graduate School of Nursing have been and continue to be essential resources for the Surgeons General of the Army, Navy, Air Force, and the U.S. Public Health Service. The University benefits from a wealth of knowledge and leadership within their faculty members who serve as educators, researchers, and consultants for military medical readiness, disaster relief, emergency preparedness, and force health protection issues. Located next to the Walter Reed National Military Medical Center (WRNMMC) on the Naval Support Activity, Bethesda, Maryland, USU also collaborates with the neighboring National Institutes of Health, the Armed Forces Radiobiology Research Institute (AFRRI), and the National Library of Medicine

The mission of the PMB Graduate Programs in Public Health is to enhance and protect the health of members of the Uniformed Services by producing knowledgeable and highly skilled public health professionals and by promoting evidence-based policy making, research, and service initiatives that support the global mission of the Uniformed Services.

To achieve the PMB Graduate Programs' mission, the following primary goals have been identified for the three major functional areas (instruction, research, and service):

In the area of instruction, our goal is to provide a high quality graduate level curriculum in public health for uniformed and civilian students to acquire the requisite knowledge and skills for public health careers that meet the needs of the Uniformed Services' community.

In the area of research, our goal is to improve the knowledge base and practice of preventive medicine and public health by conducting research and other scholarly activities with public health relevance, especially to the Uniformed Services' community in support of combat and stability operations or disaster relief/humanitarian assistance missions.

In the area of service, our goal is to support our University's mission, as well as to respond to the needs of local, national, and international communities through consultative services, clinical practice, continuing education programs, training opportunities, volunteerism, and community partnerships to improve public health.

ACCREDITATION

The Graduate Programs at USU are fully accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools. In addition, the Public Health Graduate Programs in the Department of Preventive Medicine and Biostatistics are accredited by the Council on Education for Public Health (CEPH) the national accrediting organization for Programs and Schools of Public Health. In 2013, our MPH program received full accreditation for the maximum seven-year term through 2020. In addition, the Master of Science in Public Health (MSPH) program in the area of Industrial Hygiene is certified under the Accreditation Board for Engineering and Technology (ABET). The Master of Health Administration and Policy (MHAP) program is currently accredited by the Commission on Accreditation of Healthcare Management Education (CAHME).

MASTERS DEGREE PROGRAMS AND CURRICULUM

Master of Public Health (MPH) Degree Program

Program Description

The MPH degree program provides a broad didactic experience in public health and preventive medicine. It is a rigorous curriculum with a quantitative focus, is sequenced to be completed within 12 months, and is primarily designed for individuals planning to practice preventive medicine, occupational medicine or public health within, or in conjunction with the uniformed services. An MPH degree or its academic equivalent is a specific requirement for physicians seeking board certification in Aerospace Medicine, General Preventive Medicine and Public Health, Occupational and Environmental Medicine, and several other public health specialties. Matriculants may include physicians and other academically qualified health professionals, such as veterinarians, dentists, sanitary engineers, microbiologists, entomologists, environmental scientists, nurses, and pharmacists, who wish to apply the core disciplines of public health to their career field. Uniformed personnel with education or experience in a health-related discipline are given priority as candidates for admission.

Graduates are expected to use their acquired quantitative and analytical skills in biostatistics and epidemiology to identify and measure community health needs and to investigate the impact of biological, environmental, and/or behavioral factors to solve public health problems. Each graduate will understand the components, operations, and financing of healthcare delivery services, particularly those in the public sector, and have the administrative skills to plan, analyze, manage, and improve public health programs for the uniformed services. In addition, many graduates will complete an “area of concentration” with required and elective course work in a specific area of public health and demonstrate the ability to apply appropriate specialized knowledge and skills to their chosen field.

The MPH degree program consists of a minimum of 60 quarter credit hours, to include 38 quarter credit hours from core required courses within the Department of Preventive Medicine and Biostatistics. Core requirements include coursework in epidemiology, biostatistics, environmental health, health services administration, and social and behavioral sciences. The minimum credit load per quarter required for a full-time student is 12, the maximum allowed is 22, and the typical load is 16-18. The satisfactory completion of an independent project and a practicum experience is required, and the courses related to these requirements are part of the core curriculum. The independent project is the capstone of the program and should represent the synthesis, integration, and application of core public health concepts and principles to solve or advance our understanding of a public health problem.

Summary of Program Learning Objectives

***Biostatistics*:** Upon completion of the core courses in this discipline, students will be able to collect, analyze, and interpret data of public health importance using appropriate descriptive and inferential statistical techniques, including both bivariate and multivariate methods. In

addition, students will become familiar with the use of a statistical program, such as Stata or SPSS.

***Environmental and Occupational Health*:** Upon completion of the core courses in this discipline, students will be able to identify, measure, and analyze environmental and occupational factors affecting health. Students will have the ability to (1) describe the factors that may impact health in the community, home, and workplace, (2) effectively communicate risk, and (3) explain the standards and controls necessary to mitigate these factors.

***Epidemiology*:** Upon completion of the core courses in this discipline, students will be able to (1) discuss the basic concepts pertaining to the natural history of disease in populations, (2) identify and list the strengths and weaknesses of various sources of data, (3) define measures of disease in populations, and (4) critically assess the validity and relevance of descriptive and analytical studies. Students will develop an understanding of the basic concepts of epidemiology and be able to apply them to the analysis and interpretation of epidemiologic data.

***Health Services Administration*:** Upon completion of the core courses in HSA, students will acquire the necessary skills to critically analyze the organization, structure, function, and effectiveness of health care systems and be able to (1) describe and compare the variety of health services in developed countries, (2) discuss, in depth, the current policy issues that impact the United States healthcare system, and (3) explain the behavioral and economic foundations for health promotion and disease prevention strategies in the United States. Students completing the HSA concentration will be equipped to become leaders and managers able to create, develop, and continuously improve high quality health systems.

***Social and Behavioral Sciences*:** Upon completion of the core courses in this discipline, students will be able to (1) list and explain the behaviors and social factors associated with morbidity and mortality, and (2) describe behavior-related theories and prevention strategies for modification and reduction of injuries and illnesses. Students will develop the ability to identify and utilize the relationship of human behavior and social factors in public health practice.

Course Requirements

MPH Core Curriculum

MPH Core Curriculum			
Must take the following		Credits	Quarter
PMO530	Social and Behavioral Science Applied to Public Health	4	Pre-Fall
PMO540	Introduction to Environmental and Occupational Health	4	Pre-Fall
PMO599	Introduction to Health Risk Communication	2	Pre-Fall
PMO680	Introduction to Public Health	1	Pre-Fall

PMO503	Biostatistics I	4	Fall
PMO511	Introduction to Epidemiology	4	Fall
PMO526	Health Systems	4	Fall
PMO671	Introduction to MPH Project and Practicum	1	Fall
PMO504	Biostatistics II	4	Winter
PMO527	Principles of Health Care Management	2	Winter
PMO672	MPH Project/Practicum Design and Development	1	Winter
PMO673	MPH Project/Practicum Implementation and Evaluation	1	Spring
PMO670	MPH Practicum	3	Summer
PMO674	MPH Independent Project	3	Summer

MPH Concentrations

In addition to completing the core courses listed above, MPH students will select an area of concentration from among the following: epidemiology, biostatistics, environmental and occupational health, health services administration, global health, or general preventive public health. These areas of concentration are intended to help guide students who wish to focus their training and coursework on a particular area of public health. The required courses for each concentration are listed below. On occasion, and with permission from the MPH Program Director, these required courses may be modified based on the student's educational goals.

Epidemiology and Biostatistics: Students completing this concentration will be able to function as epidemiologists in the Uniformed Services. They will acquire an understanding of advanced concepts in acute and chronic disease epidemiology, and have the ability to select and apply appropriate epidemiological and biostatistical methods in planning and carrying out epidemiological investigations.

Epidemiology and Biostatistics Concentration			
Must take the following:		Credits	Quarter
PMO 1030	Introduction to Data Management	1	Fall
PMO512	Epidemiologic Methods	4	Winter
PMO513	Advanced Epidemiologic Methods	4	Spring
Take at least two of these courses:			
PMO508	Biostatistics III	5	Spring
PMO514	Epidemiology and Control of Infectious Diseases	3	Winter
PMO515	Chronic Disease Epidemiology and Control	2	Spring
PMO519	Occupational and Environmental Epidemiology	3	Spring
PMO522	Meta-analysis	1	Spring

PMO595	Introduction to Complex Sample Survey Analysis	2	Spring
PMO611	Classic Studies in Epidemiology	2	Fall
PMO1028	Introduction to Machine Learning	3	Spring

Occupational and Environmental Health Science: This concentration provides students with the fundamental concepts and principles of environmental and occupational health, toxicology, industrial hygiene, health physics, and a survey of occupational/environmental diseases.

Occupational and Environmental Health Science Concentration			
Must take the following:		Credits	Quarter
PMO541	Advanced Environmental Health	3	Fall
PMO549	Principles of Toxicology	3	Fall
PMO550	Industrial Hygiene and Laboratory	4	Winter
PMO601	Environmental Health Risk Assessment	2	Winter

Health Services Administration: Students completing this concentration will be able to apply the necessary skills to design and develop, implement and evaluate, and continuously improve programs and systems related to promotion and health education and health care delivery in the Uniformed Services. Students will also understand and be able to apply concepts of financial management, decision making, and quality assessment to health systems and be able to develop broad policy statements concerning health care programs in the public sector as a Health Services Officer in the Uniformed Services.

Health Services Administration Concentration			
Must take the following:		Credits	Quarter
PMO533	Decision Making in Health Services	2	Fall
PMO523	Fundamentals of U.S. Health Policy	3	Winter
PMO576	Human Resource Management in Health Care	3	Spring
Or			
PMO1007	Advanced Seminar in Global Health Policy	3	Spring
PMO529	Health Care Financial Management	2	Spring
	Or		
PMO 103	Fundamentals of Health Care Finance	2	Fall
PMO998	Foundations of Leadership	1	Summer
	Or		
PMO 1010	Diversity and Leadership	2	Pre-Fall

Global Health: The mission of the USU Global Health concentration is to prepare globally minded military professionals who will be able to plan and execute health engagement in

support of security cooperation, stability operations, complex humanitarian emergencies and medical crises around the world, in wartime and peacetime. This area of concentration incorporates the global health competencies of capacity strengthening, collaborating and partnering, ethical reasoning and professional practice, health equity and social justice, program management, socio-cultural and political awareness, and strategic analysis as described by the Associations of Schools and Programs of Public Health. The concentration also provides a strategic and operational perspective of global and international health issues as applicable to US national security. Health systems are examined from the international perspective looking at resources, access, policies, current challenges, potential solutions and opportunities for reform. The student will have a whole knowledge of US government global health policy and engagement through both the lenses of civil society and the joint operator.

Global Health Concentration			
Must take the following:		Credits	Quarter
PMO528	Global Health I	4	Fall
PMO531	Program Planning and Development	3	Winter
PMO539	Global Health II	4	Winter
PMO548	Joint Health Operations (Joint Health Operations I is 2 credits offered in the Winter & Joint Health Operations II is 3 credits offered in the Spring)	2 & 3	Winter & Spring
PMO613	Public Health Issues of Disasters in Developing Countries	4	Spring
Recommended general Global Health courses include:			
PMO1007	Advanced Seminar in Global Health Policy	3	Spring
PMO1009	Domestic Disaster Management and Response	3	Winter

Tropical Public Health: This concentration will enable students to function effectively worldwide as Preventive Medicine, Public Health, and Medical Officers in the Uniformed Services. Graduates will be able to apply the basic concepts and principles of tropical medicine, malaria control, and vector biology to the epidemiology, diagnosis, treatment, prevention, and control of tropical diseases.

Tropical Public Health Concentration			
Must take the following:		Credits	Quarter
PMO1030	Introduction to Data Management	1	Fall
PMO512	Epidemiologic Methods	4	Winter
PMO560	Principles and Practices of Tropical Medicine	6	Spring
PMO565	Vector Biology	2	Fall
PMO569	Malaria Epidemiology and Control	3	Spring
Recommended courses include:			
PMO548	Joint Health Operations	2	Winter
PMO561	Medical Parasitology	3	Spring

PMO564A	Epidemiology and Control of Arboviruses	2	Spring
Additional Required Courses for the MTM&H			
PMO561	Medical Parasitology	3	Spring
PMO564A	Epidemiology and Control of Arboviruses	2	Spring
PMO990	Travel Medicine and Travel Clinic Program	2	Spring
PMO992	Travel Medicine and Travel Clinic Program	1	Summer
PMO563	Tropical Medicine Practicum	1-12	All
PMO613	Public Health Issues of Disasters in Developing Countries	4	Spring
PMO614	Tropical Medicine Rounds	2	Spring
PMO661	Current Topics in Preventive Medicine and Biostatistics	1	Spring

General Preventive Public Health: Students completing this concentration will be able to function as preventive medicine specialists in the Uniformed Services. They will acquire an understanding of advanced concepts in acute and chronic disease epidemiology, have the ability to select and apply appropriate epidemiological and biostatistical methods in planning and carrying out epidemiological investigations, be able to plan programs to improve health and reduce disease and injury, demonstrate principles of healthcare management.

General Preventive Public Health Concentration			
Must take the following:		**Credits**	**Quarter**
PMO1030	Introduction to Data Management	1	Fall
PMO512	Epidemiologic Methods	4	Winter
PMO513	Advanced Epidemiologic Methods	4	Spring
PMO514	Epidemiology and Control of Infectious Diseases	3	Winter
PMO515	Chronic Disease Epidemiology and Control	2	Spring
PMO531	Program Planning and Development	3	Winter

Independent Project Guidelines

The satisfactory completion of an independent project is an academic requirement for the MPH degree. The independent project represents a "culminating experience" and should demonstrate a student's ability to synthesize, integrate, and apply the knowledge and skills acquired through course work in the core disciplines of public health. For example, a student will identify a public health problem or issue; formulate a focused research question; conduct a systematic review of the scientific literature; develop a research protocol using the appropriate study design; obtain the necessary institutional assurances and approvals; collect data; select and apply appropriate analytic techniques; and interpret and communicate study findings, including public health significance or policy implications. Students are encouraged to expand their horizons and stretch their capabilities at every opportunity. The submission of a manuscript for publication is encouraged.

At the beginning of the academic year, each student is assigned an **Academic Advisor** who is responsible for overall guidance on matters pertaining to curriculum planning and meeting all of the master's degree program requirements. Students should meet with their Academic Advisor as soon as possible upon arrival at USU and at least once per academic quarter to discuss their proposed curriculum. In the process of selecting an independent project, students should start by discussing their areas of interest and ideas with their Academic Advisor. Ideally, students should decide on a project topic, draft a research question, and select a **Project Mentor** by the end of the Fall Quarter. Past MPH students are unanimous in their recommendation for an early start to the independent project. The primary Project Mentor should be a public health professional and USU faculty member or individual with outside affiliation with the necessary subject-matter expertise to supervise the student's work on his/her independent project. An Academic Advisor may serve as a Project Mentor for any student. If the primary Project Mentor is not USU faculty member, the student is encouraged to recruit a Co-Project Mentor from among the USU faculty.

Once an independent project topic has been selected, a brief description of the proposed project (the pre-proposal) should be submitted to the Director of Graduate Research and Practicum Programs. This usually occurs around the middle of the Winter Quarter. All pre-proposals will be reviewed for appropriateness (e.g., research involving human participants or animal care) and students will be given timely feedback. Students and their Project Mentors should meet regularly to develop the protocol, complete the necessary forms to submit for institutional assurances and approvals, discuss human participants in research issues (if applicable), and/or seek advice or assistance from other faculty, as appropriate. Students are encouraged to combine their practicum activity with their independent project, if at all possible. This will prove to be a time-efficient way of meeting the two separate requirements.

Federal and USU regulations for research involving human participants are applicable to all PMB student projects, including masters and doctoral level research protocols. It is the student's responsibility to submit the appropriate University forms along with the study proposal to the USU Office of Research (REA) for a determination of whether or not the research activity is considered to be human research and subject to review by the Institutional Review Board (IRB) prior to beginning work on the study. Some studies may receive an expedited administrative review. The University is held accountable for reviewing all human-use protocols prior to the conduct of the study, as well as continuing reviews on an annual basis thereafter, if the study continues for more than one year.

Once all necessary approvals have been obtained, the Academic Advisor and/or the Project Mentor may suggest additional course work and provide guidance on timelines for project deliverables: final proposal, oral presentation, and draft and final written report, among others. Students are also encouraged to draw upon the expertise of additional PMB faculty members as issues related to the project arise (e.g., statistical consultation). When the practicum experience is combined with the independent project, the student will work with

both the Project Mentor and a **Practicum Site Preceptor** to develop learning objectives and site products for the practicum component.

Students receive guidance on the design, development, and implementation of their MPH independent project throughout the year in three consecutive seminar courses, PMO671 Introduction to the MPH Project and Practicum, PMO672 MPH Project/Practicum Design and Development, and PMO673 MPH Project/Practicum Implementation and Evaluation, collectively known as the "PIP" series. Each course is one credit (pass/fail) for a total of three credits, and all three courses are required for MPH/MTM&H students.

Students are also required to register for PMO674 MPH Independent Project in the Summer Session just prior to graduation. This course provides a means for students to receive a letter grade and three credit hours for the final products of the required independent project. The primary Project Mentor reviews draft reports, provides feedback to the student, and assigns a grade for both the project proposal and the final written report. A secondary reviewer from among the PMB faculty will also assign a grade to the project. A panel of PMB faculty members will grade the oral presentations. Grades for the following components will constitute the final grade for PMO674: the proposal (15%), the oral presentation (35%), and the final written report (50%).

Students whose efforts on their independent projects exceed the standard three credit hours for PMO674, plus the cumulative three credits for the PIP series, may enroll in PMO811 Independent Study in Public Health for a variable number of credits during any academic quarter. The Project Mentor supervises the research and determines the number of credits using the general guideline that an average of three hours a week for 12 weeks equals one credit hour.

Timeline for project deliverables:

1. The pre-proposal for the independent project consists of a brief description of the study or project, its public health significance, a draft research question, and an estimated timeline for project completion. Students should also have completed a preliminary literature search. This document is submitted to the Director of Graduate Research and Practicum Programs during the Fall or Winter Quarter.
2. Each student should identify a team of faculty advisors (e.g., epidemiologist, biostatistician, among others) depending on your area of research interest. Students should seek advice or consultation from these faculty members, as needed, beginning with the earliest phases of the project. Students need to stay on a timeline to complete all preparatory activities (e.g., literature search, institutional approvals) so that work on the project itself can ideally begin no later than the beginning of the Spring Quarter. This will be very important for those students actually collecting data for a study involving human participants.
3. A proposal for the independent project is submitted to the Project Mentor for signature and subsequently to the Director of Graduate Research and Practicum Programs. The

proposal is a four to five-page description of the project including study design, sampling methods and sample size or power calculations, and data sources and/or survey instruments, and should include references. Notice of project approval from the Office of Research must be received by the student before definitive work begins on the project.

4. Oral presentations of the independent projects (10 minutes with five minutes for questions) will be scheduled during the summer session towards the end of the academic year. All students are expected to attend all of the presentations, and PMB Department faculty, preceptors from outside organizations, as well as other guests, will be invited to attend.
5. A final written report must be submitted to the Project Mentor and the Director of Graduate Research and Practicum Programs for distribution to a secondary faculty reviewer approximately three weeks prior to graduation.

MPH/MTM&H Practicum Experience Guidelines

The practicum experience is a requirement for the MPH/MSPH degree, separate from the independent project. The Council on Education for Public Health (CEPH), one of the national accrediting bodies for our Graduate Programs, provides the following guidelines:

"The [graduate] program must provide opportunities for professional degree students to apply the knowledge and skills being acquired through their courses of study. Practical knowledge and skills are essential. A planned, supervised, and evaluated practice experience is considered a very important component of a public health professional degree program. These opportunities should be arranged in cooperation with as wide a range of community agencies as possible, including especially local and state public health agencies in the program's geographic area. Individual waivers should be based on well-defined criteria; the possession of a prior professional degree in another field or prior work experience that is not closely related to the academic objectives of the student's degree program would not be sufficient reason for waiving the practice requirement."

A public health practicum is considered to be an essential component of the USU MPH/MSPH program. It represents an opportunity for students to enhance their classroom learning by participating in a variety of public health activities at local, regional, and national organizations, military and civilian, within the National Capital area and, possibly, more distant sites. The opportunities in this geographic area are rich and varied, and the potential for personal and professional reward is great. Because this is an educational activity, the practicum is expected to meet explicit learning objectives.

To fulfill the MPH/MSPH practicum requirement, a student must complete a minimum of 108 hours of a planned public health activity under the direct supervision of an experienced public health professional (the Practicum Site Preceptor). The practicum experience may involve research, clinical practice, program/service delivery, or policy-making settings. Examples of

appropriate types of experiences include, but are not limited to, the following: observation of day-to-day operations within a public health agency to determine how important public health issues are identified and prioritized; participation in the development of public health educational materials, reports, or survey instruments at a government or private agency; primary data collection, database development for a health surveillance system, or an outbreak investigation; management system or program evaluation; or public health policy development. A proposal for the practicum experience, jointly prepared by the student and the Practicum Site Preceptor, includes a minimum of three learning objectives and should be submitted by the end of winter Quarter. At the conclusion of the practicum experience, the student and the Site Preceptor will complete and submit separate evaluation forms.

To receive academic credit for the practicum, students register for PMO670 Public Health Practicum, MSPH students register for PMO942 EOH Directed Rotations in the Summer Session, although the hours devoted to the practicum may be spread over several academic quarters (students must maintain a log of activities). Students receive a total of three credits (pass/fail) for their practicum after the following material is submitted:

- Final Practicum Report
- Practicum Activity Log
- At least two site products produced by the student for the practicum site (ex. needs assessment, presentation, flyers, charts, etc.)
- Site evaluation to be completed by student and a student evaluation to be completed by the site preceptor

MTM&H students register for PMO563 Clinical Tropical Medicine or PMO963 Tropical Medicine Field Research. The number of credits awarded will be determined by the MTM&H Program Director, based on the duration and scope of the rotation. A minimum of 3 credits is required to meet the degree requirements. Students are directed to discuss this with the Program Director prior to course registration.

Students are referred to the Handbook on Independent Projects and Practicum Experience (under separate cover) for more complete information, guidelines, and sample forms, or contact the MPH Program Director (Office: A1040G, E-mail: darrell.singer@usuhs.edu). EOH MSPH students must coordinate with their academic advisor(s).

Admission Requirements

Preference for admission goes to medical, dental, and veterinary officers on active duty in the Uniformed Services, as well as to other Uniformed Services officers possessing doctoral degrees in health-related fields. Applicants without a doctoral degree in a health-related field may also be considered for admission. However, these applicants must have, as a minimum, a Baccalaureate degree from an accredited university in the US, Canada, or Puerto Rico with an outstanding academic record (college transcript(s) and GRE scores), some health-related experience, and demonstrated interest in pursuing a public health career.

Civilian applicants may be considered for admission in special circumstances subject to an approval process, with preference given to physicians and other health professionals sponsored by other U.S. government agencies. All students must have earned a baccalaureate degree from a U.S. College or University.

Required documents in support of the application:

- Graduate Record Exam score(s) within the previous 2 years (USU institution code 5824). GRE scores are not required for applicants who possess a MS, PhD or MD degree.
- Names of three individuals familiar with the applicant's academic, professional, and/or military service background and willing to provide a letter of recommendation. Individuals must be in positions that permit assessment of applicant's potential for graduate studies
- A personal statement describing how the applicant became interested in public health and how they envision incorporating the training they would receive in their future careers
- Complete employment history/resume including relevant research or teaching experience since college
- Clarify any lapses in time since secondary school of three months or longer in duration
- Active-duty Uniformed Services personnel must obtain the sponsorship of their parent organization and should indicate the status of obtaining this sponsorship

Deadline for full consideration of applications is December 1st for admission the following July.

If active duty service members require a letter of competitiveness or early consideration for admission before that date, they should notify the University's Graduate Education office. Late applications are considered on a case-by-case basis, especially as they concern the needs of the Uniformed Services.

Master of Tropical Medicine and Hygiene (MTM&H) Degree Program

Program Description

The goal of the Masters in Tropical Medicine & Hygiene program is to provide each student with the necessary academic background to practice as a competent public health officer and tropical disease expert in one of the uniformed services. The program is designed for medical officers desiring specific preparation for assignment to tropical medicine clinical, research and teaching positions. Graduates of the MTM&H program will acquire the same quantitative and analytical skills in biostatistics and epidemiology as MPH graduates. They will also be able to assess the health needs of international communities and to investigate the impact of biological, environmental, and behavioral factors on community health. Graduates will acquire an in-depth knowledge of the agents of tropical diseases, medical parasitology, and vector biology. During the practicum, students will have the opportunity for hands-on experience in an overseas location with the epidemiology, pathology, diagnosis, management, treatment, prevention, surveillance, and control of selected tropical diseases. The MTM&H degree also represents suitable academic preparation for residency training and board certification in General Preventive Medicine/Public Health.

Course Requirements

In addition to completing the MPH core course work, the MTM&H student must complete additional required courses:

MTM&H Requirements (in addition to MPH core)			
Must take the following:		Credits	Quarter
PMO1030	Introduction to Data Management	1	Fall
PMO512	Epidemiologic Methods	4	Winter
PMO560	Principles and Practices of Tropical Medicine	6	Spring
PMO561	Medical Parasitology	3	Spring
PMO563	Tropical Medicine Practicum	3-12	All
PMO564A	Epidemiology and Control of Arboviruses	2	Spring
PMO565	Vector Biology	2	Fall
PMO569	Malaria Epidemiology and Control	3	Spring
PMO613	PH Issues of Disasters in Developing Countries	4	Spring
PMO614	Tropical Med Rounds	2	Spring
PMO661	Current Topics in Preventive Medicine and Biostatistics	1	Spring
PMO990	Travel Medicine and Travel Clinic Practicum	2	Spring
PMO992	Travel Medicine and Travel Clinic Practicum	1	Summer

PMO563 serves as the MTM&H practicum and typically consists of a supervised clinical, research, or epidemiological rotation of four to six weeks spent at an affiliated overseas facility and involves supervised diagnosis and treatment of patients, as well as field study of diseases

endemic to tropical regions and the principles and methods of disease surveillance in the region. The student must still satisfy the separate requirements for the MPH/MTM&H project as outlined in the "Practicum and Independent Project Handbook." This is typically accomplished during the academic year, but can also be satisfied during an overseas rotation if requirements for both project and practicum are satisfied and written approval is obtained from the academic advisor, residency director, and the Director of Graduate Research and Practicum Programs. If the project will be done in conjunction with the practicum, the requirement for an oral presentation of the project must still be satisfied. This may be done through the presentation of the detailed plan for the project before the practicum takes place. Associated travel and per diem expenses are the responsibility of the applicant or applicant's sponsoring institution or Service. Some funds may be available from the University for members of the Uniformed Services through a grant from the Defense Health Agency. This curriculum offers less opportunity for elective courses than the MPH degree program and typically adds four to six weeks to the timeline for degree completion.

Admission Requirements

The MTM&H program is restricted to physicians with a medical degree from an accredited institution and at least one year of post-doctoral clinical training. The sponsoring Service or agency will be responsible for funding the travel and per diem for overseas travel completed as part of the MTM&H practicum and for verifying the applicant's professional credentials and unrestricted privilege to practice medicine. Some funds may be available from the University for members of the Uniformed Services through a grant from the Defense Health Agency (DHA). Civilians and Foreign Military (MASL students not part of a USU residency program) accepted as MTM&H students are not eligible for stipends and are personally responsible for travel and living expenses for the overseas experience.

Master of Health Administration and Policy (MHAP) Degree Program

Program Description

The vision of the Master of Health Administration and Policy (MHAP) Program is to be the premier provider of health policy and administration education for the Military Health System (MHS), federal health policy partners and Allied Host Nation personnel through a sustained commitment to leadership in academics, practice, research, and scholarship. The program provides an innovative approach to graduate education and training by offering access to top policy-making federal government agencies, think-tanks, universities, and speakers in the National Capital Area. Graduates of this program are uniquely suited for significant leadership roles in health administration and policy within the MHS, federal healthcare organizations and beyond.

The MHAP Program consists of both a didactic and residency phase, each one-year in length. The first (didactic) year is composed of 5 academic quarters. During this year, students are engaged in an in-depth approach to the study of health policy, health systems, management science, healthcare economics, financial management, quantitative methods applied to health systems administration and policy, managerial epidemiology, healthcare law and leadership. The didactic year concludes with an integrative capstone poster presentation. The second (residency) year of the program consists of an administrative residency in the National Capital Area (NCA). It is meant to provide practical experience in health administration, policy, and leadership. Preceptors, along with the Residency Director of the MHAP Program, collaborate to provide students with a customized residency experience that meets both the requirements for graduation and the professional development needs of the individual resident. Mentoring and guidance of the student are vital components of the residency phase of the program, not only to assess performance but to provide academic oversight of the student's Graduate Management Project (GMP). Possible residency opportunities are available at sites, including major tertiary healthcare facilities (both private and public sector institutions), major research facilities, DoD and federal health/policy agencies, and policy think-tanks.

Course Requirements

First Year			
Course		Credits	Quarter
PMO401	Essentials of Graduate Education in Health Administration and Policy	1	Pre-Fall
PMO530	Social and Behavioral Sciences Applied to Public Health	4	Pre-Fall
PMO1010	Diversity and Leadership	2	Pre-Fall
PMO592	Health Care Information Technology	2	Pre-Fall
PMO103	Fundamentals of Health Care Finance	2	Fall
PMO526	Health Systems	4	Fall
PMO528	Global Health I	4	Fall
PMO533	Decision Making in Health Services	2	Fall

PMO1011	Quantitative Analysis and Methods for Health Leaders and Executives I	3	Fall
PMOXXX	Patient Safety for Health Systems Leaders and Executives	2	Winter
PMO523	Fundamentals of U.S. Health Policy	3	Winter
PMO527	Principles of U.S. Health Care Management	2	Winter
PMO535	Health Care Law	2	Winter
PMO598	Health Care Economics	3	Winter
PMO1012	Quantitative Analysis and Methods for Health Leaders and Executives II	2	Winter
PMOXXX	Accreditation for Health Systems Leaders and Executives	1	Spring
PMO529	Health Care Financial Mgmt.	2	Spring
PMO532	Quality Assessment and Improvement in Health Care	2	Spring
PMO576	Human Resource Management in Health Care	3	Spring
PMO1007	Advanced Seminar in Global Health Policy	3	Spring
PMO1026	Current Issues in Health Care Administration and Policy	2	Spring
PMO1027	Managerial Epi	3	Spring
PMOXXX	MHAP Program Capstone	2	Summer
PMO998	Foundations of Leadership	1	Summer
PMO1005	Strategic Planning and Marketing for Health Care Systems	3	Summer
Second Year			Summer
PMO1015	*MHAP Program Residency	12	Pre-Fall
PMO1015	*MHAP Program Residency	12	Winter
PMO1015	*MHAP Program Residency	12	Spring
PMO1015	*MHAP Program Residency	12	Summer

*Requires successful completion of Organizational Learning Objectives mutually reviewed by Preceptor and MHAP faculty. MHAP projects are due for submission in the Spring quarter.

MHAP Program Competency Domains

Summary of the MHAP Competency Model

The MHAP Program competencies include Leadership, Execution, Policy, Transformation, and Readiness. The MHAP Program seeks to develop leaders in health who are proficient in these competencies as they pertain to health policy, management, and leadership. The MHAP Program competency model is based on these five domains:

Domain	Competency
1. Leadership	L1: Understand the art and science of leadership in healthcare administration and policy making and be prepared to take on the role of a healthcare leader and mentor.
	L2: Create an organizational climate that values diversity and fosters interpersonal understanding, professionalism, and development.

2. Execution	E1: Evaluate and use various financial and economic tools and methods in order to optimize distribution of finite resources over infinite healthcare needs.
	E2: Demonstrate ability to collaborate, communicate, and work cooperatively with others.
	E3: Recognize and evaluate HR practices and talent management strategies that optimize the performance of a diverse and changing workforce.
	E4: Investigate the use of data analysis and information technology and its potential in process and performance improvement.
	E5: Evaluate formal and informal organizational decision-making structures and power relationships in an organization.
	E6: Exhibit project management techniques including planning, execution, evaluation, and oversight.
3. Policy	Pol1: Critically analyze the political, legal, financial and/or social framework of U.S. health policy.
	Pol2: Assess and develop policy options for achieving agency/program objectives.
	Pol3: Analyze and interpret legislation, administrative regulations, judicial opinions and agency rulings.
	Pol4: Formulate plans for advocating and influencing key stakeholders and implementing agencies.
	Pol5: Understand the government resource environment, including Planning, Programming, Budgeting, Execution (PPBE), contracting, and appropriations.
4. Transformation	T1: Apply models to develop structures and systems to support team functions, effectiveness, and patient outcomes.
	T2: Comprehend and critique cause-effect relationships and unanticipated consequences when making decisions or developing strategies.
	T3: Demonstrate community engagement in aligning priorities with the needs and values of the community.
	T4: Design and critique methodology for measurement of processes, quality, program, and policy outcomes.
	T5: Assess and assemble the diverse backgrounds and perspective of others when making decisions or developing strategies.
	T6: Synthesize information to make evidence-based decisions in the presence of uncertainty.

5. Readiness	R1: Understand and assess the complex roles and relationships between inter-agency partners, international organizations and Host Nations.
	R2: Evaluate the impact and value of missions, programs and policies on populations, organizations and/or desired outcomes.
	R3: Appraise the different types of diplomacy and bases of power that may affect global health policy decision-making.
	R4: Understand the concept of readiness in the context of structures and policy as they relate to humanitarian assistance, disaster relief and contingency operations and military capability.

MHAP Program Residency

Upon completion of the didactic year, students enter a 12-month approved administrative residency designed to develop practical experience in health administration, policy, and leadership.

The objectives of the MHAP Program Administrative Residency are to enable students to (1) develop the leadership and management skills necessary to lead healthcare systems in an ever-changing environment; (2) develop policy analysis skills and comprehensive expertise to influence the strategic policy decision required in federal healthcare; (3) obtain (synthesize and apply) practical information and knowledge about health systems leadership and policy; (4) produce a Graduate Management Project (GMP) that makes a measurable contribution to the effective delivery of health services; and (5) build lasting professional relationships.

MHAP Program Graduate Management Project. As part of the residency year, students are required to complete a GMP. The GMP demonstrates the student's ability to synthesize and integrate the fundamental concepts and principles of health administration and policy leadership. It should be directly linked to the experiences derived from the administrative residency and allow students to draw on the core disciplines and competencies taught throughout the didactic year. Students utilize the MHAP Program's educational foundation based on the competency model above to assess health administration and policy problems, create sound and practical alternatives, and evaluate the effectiveness of programs and policies.

Subject matter for the GMP may encompass but is not limited to global health policy and humanitarian assistance, health finance /economics, health policy, global health, health systems support and delivery, organization, and leadership. Throughout the project's preparation, the faculty and Preceptor place a particular emphasis on applied and publishable research.

The final products of the GMP include an oral presentation and a written paper. The presentation is held with the resident's Preceptor and senior staff along with invited MHAP Program's faculty.

Admission Requirements

Preference for admission goes to medical, dental, nurse, applied science, medical service corps and veterinary officers on active duty in the Uniformed Services. Applicants from federal agencies and specific Partner/Host Nations may also be considered for admissions. Applicants without a background in health care and/or policy may also be considered for admission. However, these applicants must have, at minimum, a Baccalaureate degree with an outstanding academic record (college transcript(s) and GRE Scores) and demonstrated interest in pursuing a career as a leader in health administration and policy.

International Students will be considered if they have earned a baccalaureate degree from a United States College/University.

Application requirements include:

- A complete employment history
- A personal statement describing how the applicant became interested in health administration & policy, and how they envision incorporating the training they would receive in their future careers
- Three letters of recommendation from individuals familiar with the applicant's academic, professional, and/or military service background.
- Scores from the Graduate Record Examination, taken no more than two years before the time of application. Scores should be sent to school code 5824. (GRE requirement may be waived for students with a prior professional doctorate, with permission of Graduate Program Director).
- Active-duty Uniformed Services personnel must obtain the sponsorship of their parent service and should mention in their packet where they stand in the process of securing sponsorship

Deadline for full consideration of applications is December 1st to begin the program the following July.

If active duty service members require a letter of competitiveness or early consideration for admission before that date, they should notify the University's Graduate Education office. Late applications are considered on a case-by-case basis, especially as they concern the needs of the Uniformed Services.

Master of Science in Public Health (MSPH) Degree Program in Environmental and Occupational Health

Program Description

The MSPH degree is a two-year ABET accredited program designed to prepare students to solve environmental and occupational health problems in an ever-changing environment. Upon completion of the program, students will be able to demonstrate in-depth knowledge and understanding of the science and practice of Environmental and Occupational Health. To this end, graduates will be prepared to anticipate, recognize, evaluate, and control exposures of individuals, workers, and communities to physical, chemical, biological, ergonomic, psychosocial factors, and other stressors that can potentially cause related diseases or dysfunctions.

The MSPH degree program is designed for Uniformed Services members and environmental and occupational health practitioners. Upon completion of the MSPH program, students will be able to demonstrate in-depth knowledge and understanding of the science and practice of public health pertaining to their specialty track. The coursework hours include core coursework, electives, and directed studies. Waiver and replacements for a core course program requirement on the basis of previous coursework may be granted on a case-by-case basis with approval by the Course Director and the Research Advisor (Academic Advisor may be substituted if a Research Advisor has not yet been selected). Credit hours may be graded or pass-fail, as determined by the respective Course Director, provided the percentage of pass-fail course credits does not exceed 25% of the total number of credits for coursework taken. A written, orally-defended thesis is required for the MSPH degree.

Course Requirements

The EOH curriculum includes courses in environmental health, industrial hygiene, environmental chemistry, analytical instrumentation, risk assessment, and toxicology. Students must complete a minimum of 100 credit-hours which includes required, elective, and research courses. At least 55 credit hours of coursework (non-research hours) are required. This degree program is administered by the faculty of the PMB Division of Occupational and Environmental Health Sciences (OEHS), and is guided by a Joint Steering Committee whose membership includes senior leaders from Air Force, Army, Navy, Public Health Service, and Canadian military branches and stakeholders from a variety of Public Health organizations. Students will have the opportunity to prepare for and earn professional credentials such as the National Environmental Health Association (NEHA) Registered Sanitarian/Registered Environmental Health Specialist (RS/REHS), Certified Industrial Hygienist (CIH), Certified Safety Professional (CSP), and Certified in Public Health (CPH).

MSPH Environmental and Occupational Health Core Curriculum			
Year 1		**Credits**	**Quarter**
PMO530	Social and Behavioral Science Applied to Public Health	4	Pre-Fall
PMO540	Introduction to Environmental and Occupational Health	4	Pre-Fall
PMO680	Introduction to Public Health	1	Pre-Fall
PMO940	EOH Directed Studies	1	Pre-Fall
PMO503	Biostatistics I	4	Fall
PMO511	Intro to Epidemiology	4	Fall
PMO541	Advanced Environmental Health	3	Fall
PMO940	EOH Directed Studies	1	Fall
PMO549	Toxicology	3	Fall
PMO504	Biostatistics II	4	Winter
PMO550	Industrial Hygiene and Lab	4	Winter
PMO631	OEHS Journal Club	1	Winter
PMO940	EOH Dir Studies	1	Winter
	Winter Elective*	2-3	Winter
PMO607	Environmental Chemistry	4	Spring
PMO631	OEHS Journal Club	1	Spring
PMO940	EOH Directed Studies	1	Spring
PMO941	EOH Directed Research	3	Spring
	Spring Elective*	2-5	Spring
PMO941	EOH Directed Research	12	Summer
PMO942	EOH Directed Rotation**	3	
Year 2		**Credits**	**Quarter**
PMO940	EOH Dir Studies	1	Fall
PMO941	EOH Dir Research	6	Fall
	Fall Elective*	2-4	Fall
PMO527	Principles of Health Care Management	2	Winter
PMO940	EOH Directed Studies	1	Winter
PMO941	EOH Directed Research	9	Winter
	Winter Elective*	2-3	Winter
PMO940	EOH Directed Studies	1	Spring
PMO941	EOH Directed Research	12	Spring
	Spring Elective*	2-5	Spring
PMO941	EOH Directed Research (6 weeks)	3	Summer

*Electives listed below

** EOH Directed Rotation: Practicum requirements will be based on supporting agency or service requirements for students with less than 3 years of practical experience in their field.

MSPH Environmental and Occupational Health Electives			
Elective Courses		**Credits**	**Quarter**
PMO553	Industrial Hygiene Field Studies	1	Summer
PMO942	Environmental/Occupational Health Directed Rotations	3	Summer
PMO599	Introduction to Health Risk Communication	2	Pre-Fall
PMO548	Joint Health Operations	2	Winter
PMO578	Remote Sensing Methods in Public Health	3	Winter
PMO601	Environmental Health Risk Assessment	2	Winter
PMO602	Air Pollution and Waste Management	3	Winter
PMO605	Analytical Instrumentation Methodologies in Environmental Health	3	Winter
PMO1009	Domestic Disaster Management and Response	3	Winter
PMO508	Biostatistics III	5	Spring
PMO552	Assessing and Managing Occupational Exposures	4	Spring
PMO604	Hydrology, Water Treatment and Wastewater Treatment	3	Spring
PMO613	Public Health Issues of Disasters in Developing Countries	4	Spring
PMO1029	Occupational Noise Control (Distributed Learning)	3	Spring
PMO528	Global Health I	4	Fall
PMO555	Industrial Ventilation	4	Fall
PMO652	Occupational Ergonomics	2	Fall
PMO577	Introduction to GIS in Public Health	2	Fall
PMO584	Introduction to Health Physics	3	Fall
PMO600	Fundamentals of Human Physiology	2	Fall

Additional Requirements

Students must complete and defend a written thesis based on their original research within the two-year program. The thesis is submitted to the student's Research Advisor for approval and subsequently presented and defended before a Thesis Examination Committee followed by a public defense. In addition, students will be expected to present during other public events such as USU Research Days and profession relevant conferences. The student's Research Advisor must have an academic appointment in the PMB Department. Credit for research is received by enrolling in PMO941 Environmental Occupational Health Directed Research, with the approval of the student's Academic Advisor. Students will be assigned a grade of pass/fail by the Research Advisor for each quarter corresponding to the credit hours taken in that quarter.

The Thesis Examination Committee will be composed of at least three members: the Research Advisor, the Committee Chair, and one other member. At least two of the three members must be full-time faculty with primary appointments in the PMB Department, and one member must be within the sponsoring PMB Division in which the student is enrolled. In order for MSPH

students to receive their diploma in May, the Thesis Examination Committee must approve the thesis defense in writing by early April (exact date specified by the Graduate Education Office) of the year of graduation. After successful completion of thesis and defense, where possible, students are encouraged to compose a publishable manuscript.

The EOH MSPH curriculum includes courses in environmental health, industrial hygiene, environmental chemistry, analytical instrumentation, environmental surveillance, risk assessment, and toxicology. This program is administered by the faculty of the PMB Division of Occupational and Environmental Health Sciences (OEHS), and is guided by a Joint Steering Committee whose membership includes related specialty leaders from Air Force, Army, Navy, and Public Health Service branches. Upon completion of this curriculum, the student will have the fundamental knowledge required to take the National Environmental Health Association (NEHA) Registered Sanitarian/Registered Environmental Health Specialist (RS/REHS) and the Certified Industrial Hygienist (CIH) examinations. The EOH specialization requires a minimum of 100 credit-hours. At least 55 credit hours of coursework (non-research hours) are required and will include 2 credit hours of journal club.

The EOH MSPH program allows for an opportunity to complete a specific field or practicum experience based on supporting agency/service requirements and previous student experience in their respective professional field. This is identical to that required for the MPH degree, which is described in this PMB Handbook and the Department's "Practicum and Independent Project Handbook." MSPH EOH students enroll in PMO942 Environmental/Occupational Health Directed Rotations in the Summer Session, although the hours devoted to the practicum may be spread over several academic quarters (students must maintain a log of activities).

Admission Requirements

Admission into the MSPH program in EOH will be preferentially offered to active duty uniformed personnel in one of the preventive medicine/public health disciplines. Applicants should possess, at minimum, a Baccalaureate degree from an accredited academic institution before matriculation at USU in one of the biological or health science disciplines or in engineering, an outstanding academic record, some health-related experience, and demonstrated interest in pursuing a career in public health. Civilian applicants may be considered for admission in special circumstances subject to an additional approval process, with preference given to health professionals sponsored by other U.S. government agencies. International students will only be considered if they have earned a baccalaureate degree from a U.S., Puerto Rican, or Canadian college or university.

APPLICATION REQUIREMENTS

- Each applicant must complete a baccalaureate degree program from an accredited academic institution in the U.S., Puerto Rico or Canada before matriculation at USU.
- Complete college transcripts, transcripts of all previous graduate studies.

- A complete employment history.
- Three letters of recommendation from individuals familiar with the applicant's academic, professional, and/or military service background
- Scores from the Graduate Record Examination, taken no more than two years before the time of application. Scores should be sent to school code 5824. (GRE requirement may be waived for students with a prior professional doctorate, with permission of Graduate Program Director).

Deadline for full consideration of applications is December 1st to begin the program the following July.

If applicants require a letter of competitiveness or early consideration for admission before that date, they should notify the University's Graduate Education office. Late applications are considered on a case-by-case basis, especially as they concern the needs of the Uniformed Services.

Master of Science in Public Health (MSPH) Degree Program in Vector Biology and Parasitology

Program Description

Master of Science in Public Health tracks are two-year programs with a practicum and thesis component. In addition to coursework, MSPH students also complete coursework and other experiences, outside of the major paper or project, that substantively address scientific and analytic approaches to discovery and translation of public health knowledge in the context of a population health framework. Finally, students complete coursework that provides instruction in the foundational public health knowledge at an appropriate level of complexity. This instruction may be delivered through online, in-person or blended methodologies that meet requirements in defined content areas.

In addition to the foundational public health coursework, students in the MSPH Vector Biology and Parasitology track program will gain knowledge and understanding of the biology of arthropod vectors and zoonotic reservoirs, arthropod-borne and zoonotic diseases, disease transmission and epidemiology; medical and veterinary impact of arthropod vectors, zoonotic reservoirs, and the diseases they transmit on public and global health; how to conduct vector-borne and zoonotic disease risk assessments and how to strategically plan, coordinate, and implement vector surveillance and control operations and disease prevention. The MSPH degree in Vector Biology and Parasitology requires a minimum of 120 quarter credit hours. At least 60 credit hours of coursework (non-research hours) are required and will include a practicum experience and 1-2 credit hours of journal club or seminar in Current Topics in PMB. The coursework hours include electives and directed studies.

Course Requirements

Vector Biology and Parasitology Core Curriculum			
Year 1		**Credits**	**Quarter**
PMO530	Social and Behavioral Science Applied to Public Health	4	Pre-Fall
PMO540	Introduction to Environmental and Occupational Health	4	Pre-Fall
PMO680	Introduction to Public Health	1	Pre-Fall
PMO610	General Entomology*	1	Pre-Fall
PMO503	Biostatistics I	4	Fall
PMO511	Introduction to Epidemiology	4	Fall
PMO541	Advanced Environmental Health	3	Fall
PMO565	Vector Biology	2	Fall
PMO567	Medical Entomology	4	Fall
PMO577	GIS Methods in Public Health	2	Fall
PMO671	Introduction to MPH Project and Practicum	1	Fall
PMO504	Biostatistics II	4	Winter
PMO571	Biosystematics of Disease Vectors	2	Winter
PMO566	Vector Physiology	4	Winter
PMO578	Remote Sensing Methods (elective)	3	Winter
	Winter Elective		
PMO564	Epidemiology and Control of Arboviruses	2	Spring
PMO569	Malaria Epidemiology and Control	3	Spring
PMO661	Current Topics in Preventive Medicine and Biostatistics	1	Spring
	Spring Electives		
Year 2		**Credits**	**Quarter**
PMO964	Research in Vector Biology and/or Parasitology	15	Fall
	Fall Elective		
PMO964	Research in Vector Biology and/or Parasitology	15	Winter
	Winter Elective		
PMO964	Research in Vector Biology and/or Parasitology	15	Spring
	Spring Elective		
PMO964	Research in Vector Biology and/or Parasitology	6	Summer

Vector Biology and Parasitology Electives			
Elective Courses		**Credits**	**Quarter**
PMO548	Joint Health Operations	3	Winter
PMO602	Air Pollution and Waste Management	3	Winter
PMO605	Vector Biology Laboratory Methods	3	Winter
PMO1009	Domestic Disaster Management and Response	3	Winter
PMO548	Joint Health Operations	2	Spring
PMO561	Medical Parasitology	3	Spring
PMO604	Hydrology, Water Treatment and Wastewater Treatment	3	Spring
PMO613	Public Health Issues of Disasters in Developing Countries	4	Spring
PMO810	Integrated Pest/Vector Management	2	Spring
PMO528	Global Health I	4	Fall
PMO541	Advanced Environmental and Occupational Health	3	Fall
PMO599	Introduction to Health Risk Communication	2	Pre-Fall

* Students who have previously obtained a B or better in an equivalent course may enroll in another required/elective course

Additional Requirements

The MSPH degree in Vector Biology and Parasitology requires a specific field or practicum experience. This is identical to that required for the MPH degree, which is described in this PMB Handbook and the Department's "Practicum and Independent Project Handbook." Students take PMO670 Public Health Practicum for MPH students.

Students must complete and defend a written thesis based on their original research within the two-year program. The thesis is submitted to the student's Research Advisor for approval and subsequently presented and defended before a Thesis Examination Committee followed by a public defense. The student's Research Advisor must have an academic appointment in the PMB Department. Credit for research is received by enrolling in PMO964 Research in Vector Biology and/or Parasitology with the approval of the student's Academic Advisor. Students will be assigned a grade of pass/fail by the Research Advisor for each quarter corresponding to the credit hours taken in that quarter.

The Thesis Examination Committee will be composed of at least three members: the Research Advisor, the Committee Chair, and one other member. At least two of the three members must be full-time faculty with primary appointments in the PMB Department, and one member must be within the PMB Division of Global Public Health. In order for MSPH students to receive their diploma in May, the Thesis Examination Committee must approve the thesis defense in writing by early April (exact date specified by the Graduate Education Office) of the year of graduation. After successful completion of thesis and defense, where possible, students are encouraged to compose a publishable manuscript.

Admission Requirements

Admission into the MSPH program will be preferentially offered to uniformed active duty personnel in one of the preventive medicine/public health disciplines. Applicants should possess, at minimum, a Baccalaureate degree from an accredited academic institution in the US before matriculation at USU in one of the biological or health science disciplines, an outstanding academic record, some health-related experience, support from their Service (if active duty) and demonstrated interest in pursuing a career in public health. Civilian applicants may be considered for admission in special circumstances subject to an approval process, with preference given to health professionals sponsored by other U.S. government agencies. International students will only be considered if they have earned a baccalaureate degree (or higher) from a U.S. College or University.

APPLICATION REQUIREMENTS

- Each applicant must complete a baccalaureate degree program (or higher) from an accredited academic institution before matriculation at USU.
- Complete college transcripts, transcripts of all previous graduate studies.
- A complete employment history.
- Three letters of recommendation from individuals familiar with the applicant's academic, professional, and/or military service background
- Scores from the Graduate Record Examination, taken no more than two years before the time of application. Scores should be sent to school code 5824. (GRE requirement may be waived for students with a prior professional doctorate, with permission of Graduate Program Director).
- Active Duty applicants must have evidence of Service support.

Deadline for full consideration of applications is January 1st for matriculation the following July.

If applicants require a letter of competitiveness or early consideration for admission before that date, they should notify the University's Graduate Education office. Late applications are considered on a case-by-case basis, especially as they concern the needs of the Uniformed Services and USU.

Master of Science (MS) Degree Program in Vector Biology and Parasitology

Program Description

Master of Science is a two-year program with a practicum and thesis component. In addition to coursework, MS students also complete coursework and other experiences, outside of the major paper or project, that substantively address scientific and analytic approaches to discovery and translation of vector biology and/or parasitology knowledge in the context of

military entomology framework. Finally, students complete coursework that provides instruction in the foundational vector biology/parasitology knowledge at an appropriate level of complexity. This instruction may be delivered through online, in-person or blended methodologies that meet requirements in defined content areas.

In addition to the foundational vector biology/parasitology coursework, students in the MS Vector Biology and/or Parasitology track programs will gain knowledge and understanding of the biology of arthropod vectors and zoonotic reservoirs, arthropod-borne and zoonotic diseases, disease transmission and epidemiology; medical and veterinary impact of arthropod vectors, zoonotic reservoirs, and the diseases they transmit on public and global health; how to conduct vector-borne and zoonotic disease risk assessments and how to strategically plan, coordinate, and implement vector surveillance and control operations and disease prevention. The MS degree in Vector Biology and Parasitology requires a minimum of 120 quarter credit hours. At least 60 credit hours of coursework (non-research hours) are required and will include a practicum experience and 1-2 credit hours of journal club or seminar in Current Topics in PMB. The coursework hours include electives and directed studies.

Course Requirements

MS Vector Biology Core Curriculum			
Year 1		**Credits**	**Quarter**
PMO680	Introduction to Public Health	1	Pre-fall
PMO570	Laboratory Methods Applied to Vector Biology	4	Pre-fall
	Pre-Fall Elective	6	Pre-fall
PMO503	Biostatistics I	4	Fall
PMO511	Introduction to Epidemiology	4	Fall
PMO565	Vector Biology	2	Fall
PMO567	Medical Entomology	4	Fall
PMO577	Introduction to GIS in Public Health	2	Fall
PMO671	Introduction to the MPH Project and Practicum	1	Fall
PMO504	Biostatistics II	4	Winter
	Winter Electives	8	Winter
PMO564A	Epidemiology and Control of Arboviruses	2	Spring
PMO569	Malaria Epidemiology and Control	3	Spring
PMO661	Current Topics in PMB	1	Spring
	Spring Elective	6	Spring
PMO670 or PMO810	Vector Biology Practicum or Integrated Pest/Vector Management (didactic)	2	Summer
Year 2			
PMO964	Research in Vector Biology and/or Parasitology	15	Fall
PMO810	Integrated Pest/Vector Management Field Course OR Fall Elective		Fall

PMO964	Research in Vector Biology and/or Parasitology	15	Winter
PMO964	Research in Vector Biology and/or Parasitology	15	Spring
PMO964	Research in Vector Biology and/or Parasitology	15	Summer

Additional Requirements

The MS degree in Vector Biology and Parasitology requires a specific field or practicum experience. Students must complete and defend a written thesis based on their original research within the two-year program. The thesis is submitted to the student's Research Advisor for approval and subsequently presented and defended before a Thesis Examination Committee followed by a public defense. The student's Research Advisor must have an academic appointment in the PMB Department. Credit for research is received by enrolling in PMO964 Research in Vector Biology and/or Parasitology with the approval of the student's Academic Advisor. Students will be assigned a grade of pass/fail by the Research Advisor for each quarter corresponding to the credit hours taken in that quarter.

The Thesis Examination Committee will be composed of at least three members: the Research Advisor, the Committee Chair, and one other member. At least two of the three members must be full-time faculty with primary appointments in the PMB Department, and one member must be within PMB Division of Global Public Health. In order for MS students to receive their diploma in May, the Thesis Examination Committee must approve the thesis defense in writing by early April (exact date specified by the Graduate Education Office) of the year of graduation. After successful completion of thesis and defense, where possible, students are encouraged to compose a publishable manuscript.

Vector Biology MS Curriculum Competencies

Competency	Metric
Critical Thinking, Data Collection, handling and Analysis, Hypothesis Testing	Successful Defense of Thesis
Identification and Classification of a Range of Medically Important Arthropods	Earn >80% on Lab Exam 1 in Required Course PMO567 or equivalent
Describe behavioral, bio-ecological, environmental conditions and factors that contribute to maintenance of medically important arthropod population success and disease transmission to humans	Passing Score on Question 1 of Vector Biology & Parasitology Written Exams
Be able to perform and discuss medically important arthropod surveillance, monitoring, control, and disease prevention.	>80% on Integrated Vector Management required course PMO 810
Discuss how your specific field (military medical entomology) and Global Health Engagements are integrated into the overall mission of the DoD (or Global Public Health for Civilian students)	Passing Score on Question 2 of Vector Biology & Parasitology Written Exam

Discuss how your Thesis applies to the Global Public Health Mission	Passing Score on Question 3 of Vector Biology & Parasitology Written Exam

Admission Requirements

The MS in Vector Biology and Parasitology is designed for

- Civilian students with BS in Entomology (for Vector Biology track) or BS in Biology / Microbiology / Biochemistry or related field (for Parasitology track) with an interest in vector-borne diseases, vector biology/military entomology, vector management and vector-borne diseases control and prevention (Vector Biology track), or tropical medicine, microbiology, pathology or medical parasitology in public health (Parasitology track). Applicants are selected and funded by respective Services (e.g., via AFIT, HSCP, or other existing mechanisms) and designated as federal employees when attending USU. In most cases, graduates would then become commissioned officers (O2) upon degree completion.
- Active Duty personnel interested in an MS or PhD in Vector Biology or Parasitology (funded by AFIT, DUINS, HSCP, MSC-IPP or other existing mechanisms) with a BS in Entomology or related natural sciences field.

APPLICATION REQUIREMENTS

- Each applicant must complete a baccalaureate degree program (or higher) from an accredited academic institution in the US before matriculation at USU.
- Complete college transcripts, transcripts of all previous graduate studies.
- A complete employment history.
- Three letters of recommendation from individuals familiar with the applicant's academic, professional, and/or military service background.
- Active Duty students must have evidence of support from their Service.
- Scores from the Graduate Record Examination, taken no more than two years before the time of application. Scores should be sent to school code 5824. (GRE requirement may be waived for students with a prior professional doctorate, with permission of Graduate Program Director).

Deadline for full consideration of applications is December 1st for matriculation the following July.

If applicants require a letter of competitiveness or early consideration for admission before that date, they should notify the University's Graduate Education office. Late applications are considered on a case-by-case basis, especially as they concern the needs of the Uniformed Services and USU.

DOCTORAL DEGREE PROGRAMS AND CURRICULUM

The Department of Preventive Medicine and Biostatistics offers three doctoral programs. The PhD in Public Health prepares individuals for leadership roles in research, teaching, or policy development in the field of public health. The other two Ph.D. programs offered are Vector Biology and Parasitology, for students with a master's degree in entomology or parasitology who wish to pursue further study in field-oriented medical parasitology or vector biology; and Environmental Health Sciences, which includes environmental health science research particularly in the area of military-relevant exposure assessment. While each PMB doctoral program has specific requirements detailed in later this handbook, general requirements apply to all.

Program and Course Requirements: The minimum residency requirements for a doctoral degree will be 36 months of full-time graduate study. All requirements for a doctoral degree must be completed no later than seven years after initiating the program of graduate study at USU. Formal coursework, participation in PMB teaching programs as teaching assistants, research fellows or senior research fellows, directed research, and participation in other academic activities in approved programs of graduate study are all components of the pre-doctoral graduate education program. Academic credit will be given for participation in these activities. Full-time status for trainees in graduate education programs will be defined as 12 or more credit hours per academic quarter. The minimum requirement for formal coursework will be 48 credit hours, and the minimum requirement for total academic credit will be 144 credit hours.

Qualifying Examination: The qualifying examination for each approved program of study shall be conducted and graded by a committee consisting of a minimum of four graduate faculty members at the rank of assistant professor or above. Three members must be from the PMB department. The fourth member may hold either a faculty position in the PMB department or in another department at USU or have an appointment outside of USU. Additional members if desired, may either hold a faculty position at USU or have an appointment outside of USU. The majority of the Committee must always have full-time appointments at USU and be members of the Department granting the degree. The Examination Committee shall be appointed by the Director of PMB Doctoral Programs with the approval from the PMB Department Chair and the Associate Dean of Graduate Education.

Advancement to Candidacy: Aspirants for a PMB doctoral degree must complete all requirements for advancement to candidacy no later than two years of attendance after initiating a program of study at USU. The requirements for advancement to candidacy include the minimal requirement of 48 credit hours of formal coursework at the graduate level, a cumulative grade point average of 3.0 (B), successful completion of the qualifying examination and formation of a thesis committee. Waivers to the two-year requirement may be recommended by the Director of PMB Doctoral Programs and approved by the Associate Dean of Graduate Education. Final approval of advancement to candidacy rests with the Associate

Dean for Graduate Education acting on the recommendation of the student examination committee and the Director of PMB Doctoral Programs.

Dissertation: For the purposes of the PMB doctoral programs the terms "dissertation" and "thesis" are considered interchangeable. The thesis or dissertation is defined as an extensive written treatment of a public health topic based on the original scholarly research. A dissertation is required of all aspirants for a PMB doctoral degree. An acceptable alternative pathway is the manuscript-based thesis if agreed upon by the candidate and his or her thesis committee. The Dissertation Advisory Committee, also known as the "Thesis Committee" or "Thesis Advisory Committee" advises the doctoral candidate and helps guide his or her research. The defense of the dissertation, under the direction of the Dissertation Advisory Committee Chair, consists of an oral presentation of the dissertation and response to questions. A private defense (involving the candidate, his or her dissertation examination committee members and invited guests) and a public defense using a seminar format are required.

Doctor of Philosophy (PhD) Degree Program in Public Health

Program Description

The PhD program in Public Health is an interdisciplinary research degree intended to prepare graduates for practice-based research. Upon completion of the degree, students will be able to:

- Explain key concepts across the spectrum of public health disciplines, including epidemiology, biostatistics, health systems, social/behavioral sciences and environmental health.
- Formulate public health research questions that are informed by theory, literature review, data, and community needs.
- Select appropriate study designs to address specific public health research questions.
- Collect, analyze and interpret data (obtained either prospectively or retrospectively) to address public health research questions.
- Communicate findings and implications of public health research through multiple modalities to diverse audiences.

The minimum residency requirement for the PhD program is three years of full-time study. Students must earn a grade of "B" or better in every required course. Students are expected to complete at least 48 quarter credit hours from formal graded courses. 144 quarter credit hours are required in total, to include pass/fail courses and dissertation work.

The PhD program of study is structured of the following components:

- Prerequisites, consisting of core MPH courses.
- Required advanced core courses (40 credits)
- Elective courses in Public Health (minimum 12 credits)
- Doctoral seminar, PMB seminar and journal club (minimum 15 credits, pass/fail)
- Minimum of two teaching-assistant assignments (minimum 6 credits, pass/fail)
- Oral and written qualifying examination

- Optional research practicum (3+ credits, pass/fail)
- Dissertation

Students transferring into the PhD program from other institutions may apply up to 24 academic credits of comparable graduate level courses to meet the MPH and PhD requirements. The individuals responsible for this approval include the student's advisor, The Director of PMB Doctoral Programs, the Director of PMB Graduate Programs, and the Associate Dean for Graduate Education. The grades from transferred courses will not contribute to the overall grade point average for coursework completed at this University. Students who have previously completed the MPH program at this University may apply up to 24 credits from elective courses toward the required 48 credits of formal coursework.

Upon mutual acceptance into the program, the Director of PMB Doctoral Programs appoints an academic advisor for each incoming PhD student based on interaction with the applicant prior to acceptance into the program. The student working closely with his/her academic adviser will determine which courses will be taken during each academic quarter.

Practical public health experience is a strength of the USUHS PhD in Public Health program. USUHS students have unique opportunities to work with a variety of public health agencies due to its centralized location near Washington DC. Students receive broad exposure to the major public health issues confronting the U.S., as well as more global issues, and they learn to systematically and critically evaluate the scientific literature, identifying the inherent strengths and weaknesses of various sources of data.

Course Requirements

Prerequisite courses are required for students without a prior MPH degree. Students with a prior MPH may choose, in consultation with their academic advisor, to audit or waive these courses or to serve as a teaching assistant. In either case, students are responsible for the material covered in these courses but they will not count towards the credits for the PhD.

PhD Curriculum Prerequisites			
Courses		**Credits**	**Quarter**
PMO503	Biostatistics I	4	Fall
PMO511	Introduction to Epidemiology	4	Fall
PMO526	Health Systems	4	Fall
PMO530	Social and Behavioral Science Applied to Public Health	4	Pre-Fall
PMO540	Introduction to Environmental and Occupational Health	4	Pre-Fall
PMO680	Introduction to Public Health	1	Pre-Fall

PhD Curriculum Core Requirements			
Required Courses		**Credits**	**Quarter**
Year 1			
PMO1030	Introduction to Data Management	1	Fall
PMO541	Advanced Environmental Health	3	Fall
PMO661	Current Topics in Preventive Medicine and Biostatistics	1	Fall
PMO971	PMB Doctoral Student Journal Club	1	Fall
PMO502	Introduction to SAS	1	Winter
PMO504	Biostatistics II	4	Winter
PMO512	Epidemiologic Methods	4	Winter
PMO523	Fundamentals of U.S. Health Policy	3	Winter
PMO527 or PMO598	Principles of U.S. Health Care Management or Health Care Economics	2 or 3	Winter
PMO531	Program Planning and Development	3	Winter
PMO971	PMB Doctoral Student Journal Club	1	Winter
PMO508	Biostatistics III	5	Spring
PMO513	Advanced Epidemiologic Methods	4	Spring
PMO608	Doctoral Student Seminar	1	Spring
PMO661	Current Topics in Preventive Medicine and Biostatistics	1	Spring
PMO971	PMB Doctoral Student Journal Club	1	Spring
Year 2			
PMO599	Introduction to Health Risk Communication	2	Pre-Fall
NURS886	Proposal Development and Grantsmanship	3	Fall/Winter*
IDO704	Ethics and the Responsible Conduct of Research	1	Fall
PMO608	Doctoral Student Seminar	1	Fall
PMO661	Current Topics in Preventive Medicine and Biostatistics	1	Fall
PMO971	PMB Doctoral Student Journal Club	1	Fall
PMO608	Doctoral Student Seminar	1	Winter
PMO971	PMB Doctoral Student Journal Club	1	Winter
NURS885	Principles of Scholarly Writing	3	Winter/Spring*
PMO971	PMB Doctoral Student Journal Club	1	Spring
Year 3			
PMO971	PMB Doctoral Student Journal Club	1	Fall
PMO971	PMB Doctoral Student Journal Club	1	Winter
PMO971	PMB Doctoral Student Journal Club	1	Spring

*NURS courses are offered by the Graduate School of Nursing on the semester schedule. With permission, students may fulfill these requirements with similar courses from the Health Professions Education program or outside (consortium) courses.

Additional Requirements

Attendance at Departmental Seminars: PMB seminar attendance is strongly recommended for all PhD students and candidates while they are in residence at the USUHS campus. Doctoral students must register for course credit and attend departmental seminars during at least three quarters. Attendance at seminars conducted by other departments, the Packard Lecture and other University events is strongly encouraged.

Teaching Assistant Assignments: PhD students are required to serve as teaching assistants (TA) annually (minimum 2 times). At least one of their TA assignments should be in a 4+ credit MPH core course (i.e. PMO503, PMO511, PMO526, PMO530, or PMO540). The role of the TA will vary by course content but TAs are expected to make significant and measurable contributions to the courses in which they participate, sharing responsibility with the Course Director. Course Directors are responsible for developing specific learning objectives for the TA and for articulating the responsibilities of the TA.

Practicum: Students are encouraged to devote up to 240 hours to a practicum experience prior to graduation. The practicum will typically be conducted after the student has completed the core coursework. With permission of the student's advisor and PMB doctoral programs director, the practicum may be conducted jointly with the development of the student's dissertation proposal. Forms, requirements and more details about the practicum are available from the PMB doctoral programs director.

PhD Qualifying Examination: The qualifying examination for the PhD in Public Health is composed of a written and an oral examination. The overarching intent of the qualifying examination is to determine whether the doctoral student has developed the knowledge and skills needed for the application and synthesis of public health research.

Written Qualifying Examination: The PMB Doctoral Committee is responsible for developing and administering the PhD written qualifying examination. The written exam will be given once a year, typically in summer. The written exam will be designed to demonstrate the student's mastery of the core areas of public health through a series of related essay questions. The length and structure will be determined by the Committee, but will typically be an open-book take-home exam administered over several consecutive days. The committee will assign a score of Pass, Conditional Pass, or Fail to the overall exam. Students receiving a passing score on the written examination are then eligible to sit for the oral portion of the qualifying exam. Students receiving a score of Conditional Pass will be eligible to sit for the oral portion of the qualifying exam after successfully completing a remediation plan developed by the committee. A student receiving a score of "Fail" on the written exam will be offered the opportunity to take a second comprehensive written examination at the next time the exam is offered. A second examination will be graded as pass or fail. Students receiving a second failing grade will be recommended for disenrollment from the PhD program.

Oral Qualifying Examination: After completing all core courses and passing the written exam, the student will form an oral qualifying examination committee. The composition of the committee is described under "PMB Doctoral Programs" above. The student should meet with committee members as needed prior to the oral examination. On a date and time agreed upon by the student and the student's oral examination committee, the student will take the oral qualifying examination. All committee members and the PMB doctoral programs director may attend in person, telephonically, or virtually, and the examination should be scheduled so that at least the majority of members can attend in person.

The examination will consist of a presentation by the student centering on the research proposal he/she intends to conduct for the dissertation, followed by questions from the committee. At least two weeks prior to the examination the student will provide committee members with a copy of his/her research proposal.

The committee will ask questions pertaining to the proposal, the presentation, issues remaining from the written examination, or any other items or topics the Chair considers germane to the student's training and research. The committee must decide if the proposed research is of sufficient scope and quality for the student to advance to candidacy, and may assign a score of Pass, Pass with modifications, or Fail. A passing score means the committee recommends the student for doctoral candidacy. A score of "Pass with modifications" indicates that a student has demonstrated ability to advance to candidacy in almost all aspects. After the student presents to the committee any requested changes or clarifications, orally or in writing, the committee may change the student's status to "Pass" and the student may advance to candidacy. Students who fail will be offered one additional opportunity to retake the oral exam. A score of "Fail" on the second oral exam means the committee recommends the student's disenrollment from the PhD program.

Dissertation Advisory Committee: The Dissertation Advisory Committee is typically the same as the oral examination committee. Modification to the committee membership must be approved by the PMB Director of Doctoral Programs and the Associate Dean for Graduate Education. The dissertation committee will consist of no fewer than four members. Three of these committee members must have a doctoral degree, an academic rank of Assistant Professor or above, and a faculty appointment in the PMB Department. The thesis advisor is also a member of the committee and can serve as one of the required PMB members, if appropriate. The most senior PMB faculty member (excluding the thesis advisor) will serve as Chair of the thesis advisory committee. Additional members may hold a faculty appointment at USUHS or have an equivalent appointment outside of USUHS. Members from outside of USUHS need the consent of the thesis advisor to serve on the thesis committee. At least one member of the committee must not have a primary appointment in the PMB Department.

Advancing to Candidacy: Students will advance to candidate status within the PhD program once they have successfully passed both the written and oral components of the PhD Qualifying Examination, successfully completed 48 credit hours of formal course work (including all core

courses) with a cumulative grade point average of 3.0 (B), and submitted a completed USU form 641 to the Graduate Education Office, documenting the formation of a Dissertation Committee. Successful completion of these requirements must be communicated to the Associate Dean for Graduate Education through a formal memorandum on PMB letterhead from the PMB Director of Doctoral Programs. This memorandum provides formal recognition that a graduate student has the potential to achieve the doctoral degree.

Student Progress Monitoring: At least twice per academic year, faculty advisors must contact the Doctoral Program Director with updates on their student's progress. This will allow for timely discussion of any students who appear to be at risk. If a majority of the members of the Doctoral Committee feels that the student is not making sufficient progress, the student is formally placed on probation.

Thesis / Dissertation Requirement: The final completed thesis must be presented and defended both privately and publicly. The PhD dissertation must be based on original research, be worthy of publication, and acceptable to University Graduate Education Office and the University Board of Regents. The format and requirements for the dissertation are described in the USUHS Thesis and Dissertation Manual, posted on the Graduate Education Office website (http://www.usuhs.edu/graded/currentstudents.html).

Admission Requirements

Admission to this program will be preferentially offered to active duty military officers with a background in a health-related field. Other applicants will be considered for admission with preference given to health professionals sponsored by other U.S. government agencies. Applicants are expected to have at least a Master's degree in a related field with an outstanding academic record (undergraduate and graduate transcripts and GRE scores), some public health experience, and demonstrated interest in pursuing a career in public health. Civilian PhD students may be eligible for USUHS graduate student stipends if they meet the University eligibility criteria.

Doctor of Philosophy (PhD) Degree Program in Environmental and Occupational Health

Program Description

The PhD degree program in Environmental Health Sciences (EHS) offers students extensive classroom and research experience in the field of environmental health sciences and in selected subspecialties concerned with the health effects of biological, chemical, physical, and radiological hazards encountered in air, soil, and water. Completion of this doctoral degree program requires both independent scholarship and original research. Students have flexibility in designing a program which meets their professional and research needs. Graduates will have the education and experience necessary to enter research and/or operational careers in the environmental health sciences and have the expertise to support military operations worldwide.

Applicants will be accepted as full-time students and a minimum of three years of study in residence is required. Students must complete all program requirements (including defense of the dissertation) within 7 years from the start of the program.

All students/candidates must complete a total of at least 144 credit hours. A minimum of 48 credit hours must be devoted to formal graded coursework, as this is the minimum number of classroom hours needed to acquire the knowledge base necessary to support the research phase. The minimum number of credit hours devoted to research (PMO 941- Directed Research) is 96 credit hours. Students who have not yet completed all course requirements by the end of their 3-year in-residence period must continue to enroll in PMO 941 – Directed Research (12 credits/quarter) until all program requirements are complete.

Each doctoral student must work closely with his/her Advisory Committee to plan both the overall course of study and the dissertation research. Candidates who are active duty military members have the ability to tailor their coursework and research to meet the specific needs of their sponsoring Uniformed Service.

Course Requirements

Doctor of Philosophy in OEHS Core Requirements			
Courses		**Credits**	**Quarter**
PMO504	Biostatistics II[1,2]	4	Winter
PMO508	Biostatistics III	5	Spring
PMO1030	Introduction to Data Management	1	Spring
PMO512	Epidemiological Methods[1,2]	4	Winter
PMO541	Advanced Environmental Health[1]	3	Fall
PMO631	OEHS Journal Club (Year 1: Winter and Spring)	2	Winter/Spring
PMO691	Teaching Practicum (Fall quarter of Years 2 and 3)	6	Any

PMO971	PMB Doctoral Student Journal Club (Years 2 & 3: Fall)	2	Fall
PHD794	Scientific Ethics and the Responsible Conduct of Research	1	Fall
NURS885	Principles of Scholarly Writing (Year 2)	3	Fall/Winter (semester)

[1]The first course in the series (Biostatistics I, Epidemiology I, and/or Introduction to Occupational and Environmental Health) can be waived in some cases with permission of the program director. However, waivers will not be granted if the student has little or no academic background or practical experience in the topic area.

[2]Neither Biostatistics I nor Epidemiology I will be waived if the student has not completed an equivalent (or higher) course within the past 5 years.

Course Options for Environmental Health Focus Area			
Courses		**Credits**	**Quarter**
PMO519	Occupational and Environmental Epidemiology	2	Spring
PMO549	Principles of Toxicology	3	Fall
PMO601	Environmental Health Risk Assessment	2	Winter
PMO602	Air Pollution and Waste Management	3	Winter
PMO604	Hydrology, Water Treatment, and Wastewater Treatment	3	Spring
PMO605	Analytical Instrumentation Methodologies in Environmental Health	3	Winter
PMO607	Environmental Chemistry	4	Spring
Select at least 12 credits from Environmental Health focus area Select at least 6 credits from Epidemiology electives			

Course Options for Occupational Hygiene Focus Area			
Courses		**Credits**	**Quarter**
PMO519	Occupational and Environmental Epidemiology	2	Spring
PMO549	Principles of Toxicology	4	Fall
PMO550	Industrial Hygiene I and Laboratory	4	Winter
PMO552	Assessing and Managing Occupational Exposures	3	Fall
PMO553	Industrial Hygiene Field Studies	1	Summer
PMO555	Industrial Ventilation	4	Spring
PMO584	Introduction to Health Physics	3	Fall
PMO582	Radiation Biology	3	Spring
PMO605	Analytical Instrumentation Methodologies in Env. Health	3	Winter
PMO652	Occupational Ergonomics	2	Fall
PMO1029	Occupational Noise Control (Distributed Learning)	3	Spring
Select at least 12 credits from Occupational Hygiene Focus Area Select at least 6 credits from Epidemiology electives			

Epidemiology Electives			
Courses		**Credits**	**Quarter**
PMO513	Advanced Epidemiological Methods	4	Spring
PMO516	Design and Analysis of Epidemiology Studies	3	Any
PMO522	Meta-Analysis	1	Spring
PMO595	Introduction to Complex Sample Survey Analysis	2	Spring
PMO634	Public Health Surveillance	1	Winter
PHD833	Analytic Approaches to Data Analysis and Interpretation	3	

Research Requirements			
Courses		**Credits**	**Quarter**
PMO941	Environmental/Occupational Health Directed Research	96	Any

The list of potential electives in each focus area above is not comprehensive. Students may work with their academic Advisory Committee to request consideration of alternate courses to fulfill the electives requirement for each respective focus area. In addition to PMB courses offered by the Department, several other courses offered by other USU Departments, may be taken by students in the EHS program, if desired. PhD students must work with their Advisory Committee to identify electives that are suitable to their particular study focus. With permission, students may also take courses offered by the Foundation for Advanced Education in the Sciences (FAES) at the National Institutes of Health. FAES courses are offered in the disciplines of biochemistry, biophysics, biology, genetics, chemistry, physics, general studies, languages, mathematics, computer science, medical subspecialties, medicine, physiology, microbiology, immunology, pharmacology, toxicology, psychiatry, psychology, and statistics.

Additional Requirements

Teaching Assistant Assignments

As teaching experience is considered to be an integral part of graduate education, all graduate students in the EHS PhD program must serve as a laboratory instructor or teaching assistant in appropriate courses as assigned. At a minimum, each PhD candidate will serve as a teaching assistant (PMO 691-Teaching Practicum) in at least one course per year, starting no later than the second year of his/her program. The recommended timeline for Teaching Assistant assignments are the Fall quarters in Year 2 and Year 3. The role of the TA will vary by course content but TAs are expected to make significant and measurable contributions to the courses in which they participate, sharing responsibility with the Course Director. Course Directors are responsible for developing specific learning objectives for the TA and for articulating the responsibilities of the TA.

Academic Committees

Required Committees for each student include the Advisory, Qualifying Examination, and Dissertation Advisory committees. Composition and function of each committee is described below.

Advisory Committee: The Director, PhD EHS Program, will appoint an Advisory Committee for each PhD student within his/her first year of study. The Committee will consist of at least four members, with doctoral degrees, of the faculty (a chairperson, an academic advisor, and two others) to oversee and direct the student's program. When formed, the Advisory Committee, in concert with the student, will prepare an individually tailored program of study (including all degree requirements) and submit it for approval to the PMB Department Chair, through the Director of PMB Doctoral Programs, and forward it to the Associate Dean for Graduate Education. Any changes made by the Associate Dean, Program Directors, or PMB Chair will be in consultation with the student and his/her Advisory Committee. This Advisory Committee Report, as amended, will be regarded as the statement of program requirements.

Qualifying Examination Committee: The Qualifying Examination Committee for PhD degree students will be composed of at least four faculty members holding doctoral degrees and the rank of Assistant Professor or above. Three members must be from the PMB Department; the fourth member may be a PMB faculty member, faculty from another USU Department, or faculty from outside the University. The Qualifying Examination Committee is appointed by the Director of PMB Doctoral Programs, with the approval from the Associate Dean of Graduate Education.

Dissertation Advisory Committee: Each EHS doctoral candidate must form a Dissertation Advisory Committee composed of at least four persons with doctoral degrees. At least three of these must be USU faculty members at the rank of Assistant Professor or above with a primary appointment in the Department of Preventive Medicine and Biostatistics. A fourth member of this Committee must be from another Department at USU. Additional members may either hold a faculty position at USU or have a faculty appointment outside of USU. The majority of the Committee should be full-time faculty of the PMB Department. The most senior PMB faculty member (excluding the dissertation advisor) will serve as Chair of the Dissertation Advisory Committee. Dissertation Advisory Committee appointments are recommended by the Director of PMB Doctoral Programs and approved by the Associate Director of Graduate Education using USU form 641, Thesis Advisory Committee Form.

PhD Qualifying Examination

The qualifying examination for the PhD in Environmental Health Sciences is composed of a written and an oral examination. The overarching intent of the qualifying examination is to determine whether the doctoral student has developed the knowledge and skills needed for the application and synthesis of public health research.

Written Qualifying Examination: The written exam is comprehensive and designed to demonstrate the student's mastery of the core areas of the program, including environmental health (and its subfields), biostatistics, epidemiology, and data management through a series of related essay questions. The length and structure will be determined by the Committee, but will typically be an open-book take-home exam administered over several consecutive days. The committee will assign a score of Pass, Conditional Pass, or Fail to the overall exam. Students receiving a passing score on the written examination are then eligible to sit for the oral portion of the qualifying exam. Students receiving a score of Conditional Pass will be eligible to sit for the oral portion of the qualifying exam after successfully completing a remediation plan developed by the committee. A student receiving a score of "Fail" on the written exam may be offered the opportunity to take a second comprehensive written examination. A second examination will be graded as pass or fail. Students receiving a second failing grade will be recommended for disenrollment from the PhD program. The written Qualifying Exam should be administered at the end of the first academic year, but no later than 24 months from the start of the program.

Oral Qualifying Examination: After completing all core courses and passing the written exam, the student will complete the oral portion of the qualifying exam. The composition of the committee is described under the "Qualifying Examination Committee" section above. The student should meet with committee members as needed prior to the oral examination. On a date and time agreed upon by the student and the student's oral examination committee, the student will take the oral qualifying examination. All committee members and the PMB doctoral programs director may attend in person, telephonically, or virtually, and the examination should be scheduled so that at least the majority of members can attend in person.

The examination will consist of a presentation by the student centering on the research proposal he/she intends to conduct for the dissertation, followed by questions from the committee. At least two weeks prior to the examination the student will provide committee members with a copy of his/her research proposal. The committee will ask questions pertaining to the proposal, the presentation, issues remaining from the written examination, or any other items or topics the Chair considers germane to the student's training and research. The committee must decide if the proposed research is of sufficient scope and quality for the student to advance to candidacy, and may assign a score of Pass, Pass with modifications, or Fail. A passing score means the committee recommends the student for doctoral candidacy. A score of "Pass with modifications" indicates that a student has demonstrated ability to advance to candidacy in almost all aspects. After the student presents to the committee any requested changes or clarifications, orally or in writing, the committee may change the student's status to "Pass" and the student may advance to candidacy. Students who fail will be offered one additional opportunity to retake the oral exam. A score of "Fail" on the second oral exam will result in the committee recommending the student's disenrollment from the PhD program.

Advancing to Candidacy

Students will advance to candidate status within the PhD program once they have successfully passed both the written and oral components of the PhD Qualifying Examination, successfully completed at least 48 credit hours of formal, graded course work (including all core courses) with a cumulative grade point average of 3.0 (B), and submitted a completed USU form 641 to the Graduate Education Office, documenting the formation of a Dissertation Committee. Successful completion of these requirements must be communicated to the Associate Dean for Graduate Education through a formal memorandum on PMB letterhead from the Director of Doctoral Programs. This memorandum provides formal recognition that a graduate student has the potential to achieve the doctoral degree. Students are expected to advance to candidacy within two years of matriculation.

Dissertation Requirement
The final completed thesis must be presented and defended both privately and publicly (generally in a seminar format). The PhD dissertation must be based on original research, be worthy of publication, and acceptable to University Graduate Education Office and the University Board of Regents. Final defense of the dissertation must be completed within seven years from the program start date. The format and requirements for the dissertation are described in the USUHS Thesis and Dissertation Manual, posted on the Graduate Education Office website (http://www.usuhs.edu/graded/currentstudents.html).

Student Progress Monitoring
At least twice per academic year, PhD student faculty advisors must contact the Director of the PhD in EHS program with updates on their students' progress. This will allow for timely discussion of any students who appear to be at risk. If a majority of the members of the Dissertation Advisory Committee believe that the student is not making sufficient progress, the student is formally placed on probation.

Admission Requirements

Qualified active duty uniformed officers serving in fields related to environmental health and authorized for full-time duty-under-instruction education by their sponsoring service will be preferentially reviewed for admission to the PhD programs in Environmental Health Science. At a minimum, applicants must have a Master's degree from an accredited academic institution before matriculation at USU with an outstanding academic record (undergraduate and graduate transcripts and GRE scores) and documented successful completion of rigorous coursework related to their desired area of graduate study.

Deadline for full consideration of applications is December 1st for matriculation the following July.

If applicants require a letter of competitiveness or early consideration for admission before that date, they should notify the University's Graduate Education office. Late applications are considered on a case-by-case basis, especially as they concern the needs of the Uniformed Services.

Doctor of Philosophy (PhD) Degree Program in Vector Biology and Parasitology

Program Description

This PhD degree program provides a broad didactic and research experience in Vector Biology and Parasitology. Specific goals for this PhD degree program are to develop independent scholarship, originality, and competence in research, teaching, and professional service. This program is designed for outstanding students with a strong commitment to careers in Vector Biology and/or Parasitology. Within the PhD program, an individualized course of study is designed for each graduate student to meet his or her specific needs. Students will be individually directed with courses selected in consultation with their committee members, but students in the PhD in Vector Biology and Parasitology are generally classified into one of two tracks: Vector Biology track or Medical Parasitology track. Tracks informally indicate emphasis of study area, with the overall goal to provide training and experience necessaries for research careers in Medical Parasitology or Vector Biology within the DoD and Public Health Services.

All students are expected to complete a minimum of 144 credit hours, of which 48 credit hours must be devoted to formal coursework. Applicants will be accepted as full-time students, and a minimum of three years of study in residence is required.

A series of core courses will be required of all students in the Vector Biology and Parasitology PhD program. Students will be individually directed with courses selected in consultation with their committee members, but in general, in addition to core required courses (see table below) students in the Medical Parasitology track will take courses that emphasize their training and interests such as Experimental Parasitology, Helminthology, Protozoology. Included in the Medical Parasitology track is participation in the Diagnostic Parasitology course offered to second-year medical students. Students with Vector Biology degree emphasis will take courses that emphasize their interests such as Vector Biology, Vector Physiology, Arbovirology, Biosystematics, Integrated Vector Management. All students are also encouraged to take courses in molecular biology, biochemistry, immunology, and other topics associated with their interests, future job or professional community expectations and track.

Extensive course offerings (e.g. molecular biology) are available from other USU Departments. Students may also be eligible to take elective courses from the National Institutes of Health and The Foundation for Advanced Education in the Sciences (FAES) Graduate School at the National Institutes of Health. FAES courses are offered in the disciplines of biochemistry, biophysics, biology, genetics, chemistry, physics, general studies, languages, mathematics, computer science, medical subspecialties, medicine, physiology, microbiology, immunology, pharmacology, toxicology, psychiatry, psychology and statistics.

Course Requirements

Doctor of Philosophy in Vector Biology and Parasitology Core Courses			
Courses		**Credits**	**Quarter**
PMO540	Introduction to Environmental and Occupational Health	4	Pre-Fall
PMO503	Biostatistics I	4	Fall
PMO567	Medical Entomology	4	Fall
PMO511	Introduction to Epidemiology	4	Fall
PMO1030	Introduction to Data Management	1	Fall
IDO704	Scientific Ethics and the Responsible Conduct of Research	1	Fall
PMO504	Biostatistics II	4	Winter
PMO512	Epidemiologic Methods	4	Winter
PMO569	Malaria Epidemiology and Control	3	Spring
PMO561	Medical Parasitology	3	Spring
PMO560	Principles and Practice of Tropical Medicine	6	Spring
PMO564A	Epidemiology and Control of Arboviruses	2	Spring

Additional Information

To advance to candidacy in Vector Biology and Parasitology, students must pass a Qualifying Examination consisting of two parts: The written examination is comprehensive and designed to test the student's knowledge of selected topics in vector biology and parasitology, as well as the student's problem-solving abilities. For those who matriculate with a master's degree, the Qualifying Examination will normally be scheduled one year post-admission and no later than 24 months post-admission. The Qualifying Examination Committee for PhD degree candidates will be composed of at least four faculty members at the rank of Assistant Professor or above, three from the PMB Department, and appointments are made by the PMB Director of Graduate Programs. The fourth member may hold either a faculty position in this Department, in another USU Department, or have an appointment outside of USU. Additional members, if desired, may be USU faculty or affiliated with an outside institution. The majority of the Committee will be full-time faculty members of the PMB Department. The Qualifying Examination Committee is appointed by the Director of PMB Doctoral Programs with the approval from the Associate Director of Graduate Education. While all core courses must be successfully completed prior to advancement to candidacy, with the approval of their academic advisor, students may form and take their qualifying examinations prior to completion of all core courses.

A written dissertation based on the student's original research must be prepared by the student, submitted for approval to the Advisory Committee, and presented and defended before a Dissertation Committee.

The Dissertation Examination Committee will be composed of at least four persons with doctoral degrees. At least three of these must be USU faculty members at the rank of Assistant Professor or above with a primary appointment in the Department of Preventive Medicine and

Biostatistics. A fourth member of this Committee will be from another Department at USU. Additional members may either hold a faculty position at USU or have an appointment outside of USU. Outside appointments will be recommended by the Dissertation Committee appointments are recommended by the Director of PMB Doctoral Programs and approved by the Associate Director of Graduate Education using USU form 641, Thesis Advisory Committee Form.

Admission Requirements

Qualified active duty uniformed officers serving in fields related to environmental health, public health and vector biology (medical entomology) will be preferentially reviewed for admission to the PhD program in Vector Biology and Parasitology. Civilian applicants are considered on a space available basis with preference given to health professionals sponsored by U.S. government agencies. Matriculants should have a Master's degree in an appropriate field of biology that includes sufficient foundational coursework in the track they will be studying. Only under the most exceptional circumstances will individuals with only a Baccalaureate degree be considered for admission to the program. Applicants must have an outstanding academic record (undergraduate transcript and GRE scores) and documented successful completion of rigorous coursework related to their desired area of graduate study. A limited number of pre-doctoral teaching/research assistantship stipends are available for civilian graduate students in PhD programs through the Graduate Education Office.

International Students will be considered if they have earned a baccalaureate degree from a United States College/University.

GRADUATE MEDICAL EDUCATION PROGRAMS

Occupational and Environmental Medicine (OEM) Residency

Mission

The residency develops physician leaders in occupational and environmental medicine, with specific expertise in support of the health of military service members, civilian employees, and family members within the scope of Department of Defense programs. This mission aligns with the larger mission of the National Capital Consortium (NCC), which is to educate physicians, dentists, and other healthcare professionals who care for soldiers, sailors, airmen, and marines of all ages and their families. The program's mission is accomplished through (1) the Uniformed Services University Master of Public Health degree program, which includes a military unique curriculum, and (2) the development of military-specific preventive medicine competencies through extensive military and federal rotation opportunities with a dedicated and experienced network of faculty preceptors.

Background and Overall Residency Structure

The NCC/USU OEM Residency is a 2-year program for Medical Corps officers sponsored by the Army, Navy, and Air Force. Commissioned Corps Officers of the US Public Health Service have completed the residency in the past and are eligible to apply with Public Health Service sponsorship. Foreign medical officers, when sponsored by their home country's department of defense, have also completed the residency.

The NCC/USU OEM Residency is co-located and shares resources with the NCC/USU General Preventive Medicine Residency (GPM).

Post-Graduate Year 2 (PGY2): First Year of residency Training

The primary objective of PGY2 is to provide the residents with a solid academic foundation in public health. To successfully complete this predominantly academic year, residents must meet 75% of the requirements for the MPH degree, which requires a minimum of 60 course credits. PGY2 residents will be full time MPH students during the pre-fall, fall and winter quarters. During the spring quarter, residents will complete seven credit hours by spending one day per week at USU. For the remainder of the week, they will provide direct patient care in an occupational setting in accordance with the ACGME requirement for 4 months of direct patient care in each year of residency training. During the summer session, PGY2 residents will complete a 3 credit Public Health Practicum PMO670, and the Field Industrial Hygiene Course PMO553, while continuing to provide direct patient care in an occupational setting. Residents will maintain at least 1 credit hour of academic work towards their MPH each term of their PGY3 year based upon their participation in journal club or enrollment in credit hours of independent study with a member of the USU residency faculty.

In addition to the core requirements, OEM residents must complete PMO973 GPM and OEM Journal Club, and courses as noted in the Occupational and Environmental Health

Concentration. This academic training culminates with the awarding of a Master of Public Health (MPH), which may be awarded at the end of PGY2 or PGY3 depending on the timing of completion of the resident's independent research project.

Residents who enter training with an MPH degree should apply for an MPH certificate program through USU, which will enable them to take individual courses required by the residency. Careful review of transcripts with the program director for content and currency of knowledge leads to an individual needs assessment. Residents may be asked to take additional MPH coursework, or to repeat courses that they have previously taken, especially if their degree was earned more than 4 years prior to starting the residency.

PGY3

The objective of the second year is to permit the resident to progress in attainment of clinical competencies and to give the resident opportunities to apply the 'book knowledge' to real world occupational medicine practice situations. The challenge of occupational medicine is to make rational, evidence-based decisions based on sound data and science in the face of uncertainty, inadequate information, politics, and economics.

The second year is structured as a series of clinical and administrative rotations, typically lasting 4-8 weeks each. Each rotation is built around ACGME competencies, and each rotation has a designated preceptor who supervises and guides the resident. The resident is expected to fully participate in a "hands-on" mode during practicum rotations, assuming significant responsibilities, often supervising first year residents who are rotating at the same rotation site. Usually, in addition to dealing with the day-to-day work at the rotation site, the clinical rotation preceptor and resident will mutually agree on a quality improvement project for the resident to complete.

Residents are expected to complete their independent research project at the latest by December of their second year of residency training, PGY3. All PGY3 residents attend weekly journal club and also residency didactics on Wednesdays from September to May. PGY3 resident rotations must include 4 months of direct patient care. The remainder of the rotations are tailored to each residents' experience and interest to ensure that they achieve competence in the core competency areas of occupational and environmental medicine, as well as to meet the needs of his/her sponsoring service or agency.

Because of the unique circumstances of the USU OEM residency (robust support for the residency, fully funded and salaried residents, and a prime location in Washington, DC), a large number of practicum rotations are possible. The greatest dilemma for most residents in the second year is choosing among the different rotation possibilities. Doing a variety of rotations is desirable because it allows the resident to experience a wide range of occupational medicine practice situations.

PGY3 residents are expected to take a more active leadership role in journal club and didactic activities. They are expected to serve as mentors for first year residents, advising them on their courses and teaching them about the PGY3. The residents are expected to present the results of their research projects at a national professional meeting or submit a manuscript for publication.

In order to permit an on-time graduation, residents may not take more than two weeks of leave each year.

Core Rotations
Required "core" rotations, are typically 4-8 weeks in duration. They are designed to cover a wide spectrum of preventive and occupational medicine practice, including front-line clinical military and civilian public health agencies. They also provide experience with higher-level policy organizations in the military and civilian sectors. If a resident already has significant experience in one of these areas then a core rotation may be waived at the discretion of the Program Director.

Per the residency program requirements, each resident must complete a minimum of four months of direct patient care in an occupational setting during each year of the program. In addition several other administrative rotations are required including Occupational Safety and Health Administration and respective service-specific sites. More information regarding rotations can be found in the OEM Residency Handbook.

Application Process
The NCC/USU OEM Residency does not participate in the civilian residency match program, but instead uses the DoD Joint Graduate Medical Education Selection Board (JGMESB) to select our residents. The JGMESB typically meets early in December each year, and notification of those selected occurs shortly thereafter, usually by posting to the Service respective graduate medical education websites.

Army, Air Force and Navy information on the JGMESB process is available from:

Army
GENERAL INFORMATION FOR MEDICAL EDUCATION DIRECTORATE
HQDA, OTSG
ATTN: DASG-PSZ-M
5109 LEESBURG PIKE
Skyline 6, Room 691
FALLS CHURCH, VA 22041-3258
Phone Numbers: (877) 633-2769, (703) 681-7781, DSN 761-7781
Fax Numbers: 703-681-8044, DSN 761-8044
Email: DASG.ZHM@OTSG.AMEDD.ARMY.MIL
Internet: http://www.mods.army.mil/medicaleducation/

Navy
Naval Medicine Professional Development Command (NMPDC)
Graduate Programs - Code OG12I
Bldg 1, Tower 15
8901 Wisconsin Avenue
Bethesda, MD 20889-5611
FTOS/OFI PROGRAMS ASSISTANT (CODE-OG151)
COMM: (301) 319-4511 DSN: 285-4511
FAX: (301) 295-6113
Internet: http://nshs.med.navy.mil/gme/mcpp.htm

Air Force
HQ AFPC/DPAME
550 C Street W Suite 25
Randolph AFB, TX 78150-4727
COMM: 210-565-2638 DSN 665-2638
Toll Free: 1-800-531-5800
FAX: 210-565-2830
E-Mail: afpc.dpame@randolph.af.mil
Internet: http://www.afpc.randolph.af.mil/medical/PhysicianEducation/default.htm

The NCC/USU OEM residency program has the capacity for fifteen total residents between the PGY2 and PGY3 years. The number of sponsored (fully funded) residency training authorizations varies from year-to-year, based upon Service training needs. Canadian military officers are accommodated on a space available basis after the DoD match is completed.

Application to the USU MPH is program is a separate process which is completed after acceptance to the NCC/USU Preventive Medicine residency program through the JGMESB. Information on application to the USU Graduate School is available at http://www.usuhs.mil/graded. The deadline for application to the MPH or MTM&H program is 1 December, but may be waived if you are accepted into the residency program after this date.

Applicants must have, at a minimum, completed an internship of which at least 11 months are clinical. Fulfilling this requirement allows the internship to count as the PGY1 year for ABPM certification eligibility.

The most competitive physician applicants have completed an initial tour as a general medical officer (GMO), undersea medical officer (UMO) or flight surgeon (FS) prior to residency. Many past and current residents enter the OEM residency already board certified in another specialty, such as Internal Medicine or Family Practice.

Public Health and General Preventive Medicine (GPM) Residency

Mission

The NCC (USU) Public Health and General Preventive Medicine (GPM) Residency trains residents to be fully competent, board-certified and lifelong learning physicians who expertly apply population-based methods in order to promote, protect, preserve and rehabilitate the health of those who go in harm's way.

Overall Learning Objectives

At the completion of this training program, residents will be able to:

- Effectively apply principles and methods of epidemiology and biostatistics
- Plan, administer, and evaluate health systems and medical programs
- Recognize, assess, and control environmental and occupational health hazards
- Address social, cultural and behavioral factors influencing individual and public health
- Implement primary, secondary, and tertiary prevention for assessed needs
- Identify and counter disease and injury threats related to military service
- Communicate clearly to multiple professional and lay target groups, in both written and oral presentations, the level of risk from hazards and the rationale for and results of interventions

Background and Overall Residency Structure

The NCC (USU) GPM Residency is a two-year graduate medical education training program sponsored by the Uniformed Services of the United States and is fully accredited by the Accreditation Council for Graduate Medical Education (ACGME). This program trains medical corps officers from the U.S. Air Force, Navy, and Army, as well as medical officers from the Canadian Armed Forces. The GPM residency program is approved by the ACGME to train up to fourteen (14) total residents, split between the Post-Graduate Year two (PGY2) and PGY3 training years. The number of sponsored (fully funded) residency training authorizations varies from year-to-year, based upon Service training needs. The GPM Residency is co-located and shares resources with the NCC (USU) Occupational and Environmental Medicine (OEM) Residency. Both programs may also train other sponsored foreign military physicians with fully fluent English language skills, and/or U.S. Public Health Service physicians on a space-available basis.

PGY2 Year

The GPM PGY2 year is twelve months in duration, beginning the first week in July and ending the last week in June. For the purpose of board certification in Public Health and General Preventive Medicine, the ABPM requires a course of academic study culminating in award of a Master of Public Health or equivalent degree. USU offers both a Master of Public Health (MPH) and a Master of Tropical Medicine and Hygiene (MTM&H) degree, which are commonly used by GPM residents to meet their academic requirements

Most of the coursework for the Graduate Degree is accomplished during the PGY2 year, and the Masters degrees are awarded at the end of the PGY3 year. Within the USU MPH degree

program, there are optional “concentration areas” which GPM residents may select in order to focus their studies. Details on these concentration areas may be found in chapter XX of this handbook. Residents will work with their program director and academic advisors to complete curriculum planning worksheets and Individual Learning Plans at the beginning of their PGY2 years.

PGY3 Year

GPM Core Practicum rotations: Following the PGY2 year, 12 months of practicum rotations, including a minimum of 2 months of direct patient care and a minimum of 2 months experience at a governmental public health agency, is required by the ACGME. The current required “core” practicum rotations are as below:

- Two months in county public health (Montgomery or Fairfax counties)
- Two months of direct patient care: Various sites are used for this requirement to include Walter Reed National Military Medical Center, US Naval Academy, and the Department of State travel clinic.
- Policy rotation (Bureau of Medicine and Surgery, Air Force Medical Readiness Agency, or the Office of the Surgeon General (Army))
- A clinical preventive services rotation at the Agency for Health Care Research and Quality (AHRQ)
- A surveillance/practical application of epidemiology principles rotation at the Armed Forces Health Surveillance Branch (AFHSB)
- Operational preventive medicine at Navy Environmental and Preventive Medicine Units, Air Force trainee health sites, or Madigan Army Medical Center preventive medicine clinic.

PGY3 Elective Rotations

There are a wide range of additional rotations available. The remainder of the practicum year can be tailored to an individual resident’s interests, needs, and experience level. Potential electives include:

- Navy and Marine Corps Public Health Center, Norfolk, VA
- Military Overseas Research Activities (Lima, Bangkok, Kenya)
- USU Center for Global Health Engagement (CGHE), USU
- Immunization Health Care Branch, Defense Health Agency, Falls Church, VA and WRNMMC
- National Center for Medical Intelligence (NCMI), Fort Detrick, MD

Many other rotations within the DC metro area are available or can be created based on the resident's interests and initiative. Due to the need for ongoing didactic training and budgetary constraints, residents are generally limited to 2 months of “away” rotations during the PGY3 year.

PGY3 Year Didactic Components
During the practicum year, a variety of didactic training activities occur in addition to rotations. Conferences, selected courses and other non-rotation requirements for the PGY3 year are described below:

PMB Seminars: When residents are in the National Capital Area, they are required to attend the weekly Wednesday Preventive Medicine and Biostatistics (PMB) seminar.

Weekly Residency Journal Clubs: During both the PGY2 and PGY3 year, PMO973 or Journal Club, is mandatory for all GPM residents in the National Capital Area. During this didactic session, residents hone critical appraisal skills, review relevant clinical preventive medicine literature, discuss current preventive medicine issues, and give presentations. A variety of topics are covered, including updates and discussions of resident projects, ABPM examination preparation and review, career planning, orientation to the real world culture and expectations of PM, and discussion of residency policy issues.

Professional Conferences: During the PGY3, each resident is required to attend at least one major national conference, typically the American College of Preventive Medicine (ACPM) Annual Conference (www.acpm.org).

Other Courses: There are a wide variety of short courses and external seminars which are required or potentially available to residents. Required courses are labeled with "**" below. This requirement may be waived by the program director with prior experience or equivalent training. Some of the courses available include:

- **Medical Management of Chemical and Biological Casualties Course (MMCBC) http://www.usamriid.army.mil/education/
- **Medical Effects of Ionizing Radiation (MEIR) Course https://www.usuhs.edu/afrri/meircourseschedule
- The Denver TB Course, (https://www.nationaljewish.org/education-training/pro-ed/live-events) the premier biannual four-day course held in at the National Jewish Medical and Research Center each October and April. Information on the course is made available a few months before the course.
- Course offerings from the Center for Global Health Engagement: https://www.usuhs.edu/cghe
- Military Tropical Medicine (often taken by Navy residents between residency and reporting to assignment): http://www.med.navy.mil/sites/nmpdc/courses/Pages/Military%20Tropical%20Medicine.aspx
- ACLM Lifestyle Medicine Course (depending on funding, may be funded by residency): https://www.lifestylemedicine.org/Lifestyle-Medicine-Course-Syllabus

Additional National Courses and Meetings which can be considered if funding is available and/or could be attended on PTAD/PTDY status:

- The Association for Prevention Teaching and Research (previously the American Society of Teachers of Preventive Medicine) http://www.aptrweb.org
- CDC Epidemiology Intelligence Service Conference https://www.cdc.gov/eis/conference/index.html
- American Public Health Association Annual Meeting http://www.apha.org
- American Society of Tropical Medicine and Hygiene Annual Meeting http://www.astmh.org
- International Conference on Emerging Infectious Diseases https://www.cdc.gov/iceid/index.html
- International Society of Travel Medicine Conference http://www.istm.org

Application Process

The NCC (USU) GPM Residency does not participate in the civilian residency match program, but instead uses the DoD Joint Service Graduate Medical Education Selection Board (JSGMESB) to select our residents. The JSGMESB typically meets early in December each year, and notification of those selected occurs shortly thereafter, usually by posting to the Service respective graduate medical education websites in mid-December. Information on the JSGMESB process is available from service specific sources below:

Air Force

HQ AFPC/DP2NP
Physician Education
550 C Street West
JBSA-Randolph AFB, TX 78150-4727
COMM: 210-565-2638 DSN 665-2638
E-mail: AFPC.DP2NP.PhysicanEducation@usaf.mil
https://www.airforcemedicine.af.mil/Organizations/Physician-Education-Branch/

Navy

Naval Medical Professional Development Center
Code 1WMC1
8955 Wood Road, Bldg 1 18th Floor
Bethesda, MD 20889-5628
E-mail: usn.bethesda.navmedprodevctrmd.list.nmpdc-gmesb@mail.mil
GME website:
http://www.med.navy.mil/sites/nmpdc/professional-development/SitePages/Graduate%20Medical%20Education%20Overview.aspx

Army

Director of Medical Education, OTSG
7700 Arlington Blvd, Suite 5145
Falls Church, VA 22042-5145
usarmy.ncr.hqda-otsg.mbx.otsg-gme@mail.mil

https://www.mods.army.mil/medicaleducation/

Application to the USU MPH or MTM&H program is done separately after acceptance to the NCC (USU) General Preventive Medicine residency program. Information on application to the USU graduate school is available in the handbook MPH section and at https://registrar.usuhs.edu/.

Contact information

For additional information, the GPM Program Coordinator may be reached by phone at 301-295-3717 or by email at gpm_residency@usuhs.edu. Information about the program is available at our website at https://www.usuhs.edu/pmb/gpm-residency.

PROCEDURES AND POLICIES

USU Academic Policies

Responsible Conduct of Science

The Graduate Students' Code on the Responsible Conduct of Science was developed by USU faculty and modified and adopted by USU Graduate Students. Your behavior as a graduate student and biomedical scientist should adhere to these principles.

"I will demonstrate honesty, integrity and professionalism in planning, conducting, interpreting and reporting my scientific research. My work will be rigorous, unbiased, ethical, scholarly, and as far as possible, objective. I will undertake only research for which I am qualified, and will collaborate and cooperate with other specialists when that is beneficial to the research.

I will show respect for my animal research subjects and human research volunteers. I will use both appropriately and humanely. I will consider both the animals and the volunteers' comfort, not causing unnecessary pain or distress in my research, while maximizing potential benefits to both the subjects and to society, while minimizing risks. With human volunteers, I will maximize their welfare and secure fully informed consent stressing voluntariness. I will be knowledgeable about applicable laws and regulations concerning the use of animals and human research participants, and be diligent in ensuring that they are followed.

I will show respect for fellow students and researchers, ensuring that they receive appropriate credit for their contributions to the research. I will share my knowledge, methods, and results with others in a fair and expeditious way. I will provide objective, unbiased reviews of other scientists' work. I will provide accurate and understandable information to fellow scientists and to the public.

I will consider my responsibilities to society in my choice of research topics, in using my resources wisely and safely, and in avoiding conflicts of interest or commitment. I will be involved with the social and ethical ramifications and the environmental impact of my discoveries, proceeding in the best interests in society."

Academic Honesty

The USU policy on academic "cheating" is articulated in USU Instruction 1306, "Academic Standing of Graduate Students", revised, effective January 1, 1996.

It states, in part:

> Students/fellows whose performance is academically unethical are subject to dismissal even though they are otherwise in good academic standing.
>
> Students/fellows shall not:
>
> - Use, attempt to use, or copy an unauthorized material during any examination or graded exercise;
> - Knowingly present the work of someone else as their own work without attribution;
> - Forge or alter for advantage any academic document;
> - Knowingly disregard instruction for the proper performance of any examination or graded exercise;

- Intentionally impede or interfere with the ability of fellow students/fellows to use academic materials or to complete academic work; or
- Knowingly assist a fellow student/fellow in any of the above activities.

In addition to those actions listed [above], GEC [Graduate Education Committee] may determine that other actions demonstrate unethical academic behavior.

This subject is extremely important and is treated as such by the USU community. If you have any questions or wish to discuss or review this policy, please see the Director, Graduate Programs, Department of Preventive Medicine and Biostatistics, or the Associate Dean for Graduate Education.

Academic Freedom

USU students have the privilege of respectful dialogue amongst academic colleagues and may debate any subject related to the USU course materials within the classroom setting. Indeed, one of the goals of professional federal/military education is to develop officers and civilian students who can employ innovative thinking when confronted with changing situations; it is imperative that the University provide a learning environment that encourages officers and civilians to cast a critical eye on traditional or accepted concepts. In this regard, the University is a safe and proper setting for students to practice the art of communicating innovative and non-traditional concepts. It is expected that officers and civilians will debate their viewpoints responsibly reflecting professionalism and courtesy.

Personal Interactions with Faculty

Students should interact with faculty in a professional manner and with respect for the academic knowledge and authority of the faculty. However, students must not be coerced or become involved in interactions with faculty that create, in fact or appearance, academically inappropriate behavior in what is, by its very nature, an unequal relationship.
A School of Medicine Dean's Policy Memorandum on "Personal Interactions or Relationships of School of Medicine Faculty and Students" states that "members of the Faculty shall not engage in relationships with students which could be conceived as "dating", while the student and the member of the faculty are, or could be during the student's course of study, engaged in a formal course of instruction. Such relationships are considered inappropriate because they compromise the academic distinction of mentor and student, not only in the eyes of those involved, but in others who may perceive such actions as a compromise. Relationships between faculty and students may also compromise the academic validity of the student's credentials."
Perceived faculty misconduct and/or inappropriate interactions or behavior with or toward a student should be reported to the Program Director, Advisor, Department Chair, and/or the Associate Dean for Graduate Education.

Academic Standing Policy

Standards of performance and procedures regarding academic status for graduate students are contained in USU Instruction No. 1306 "Academic Standing of Graduate Students" of 10 August 1982. These standards are:

- Satisfactory academic standing is defined as a cumulative grade point average of B (3.0), with no grade below “C” in any course. Doctoral level students must earn at least a “B” in each required course.
- Satisfactory academic standing is determined both by performance in formal courses and by the aspects of academic performance, including skills, attitudes and attributes judged by the graduate faculty to be important for success as a basic medical scientist. These include factors such as honesty, integrity, reliability, perception, balanced judgment, personal insight, and the ability to relate to others.

Graduate students will be referred to the Graduate Education Committee for review for any of the following reasons:

- When a final grade of “D” or “F” is received in any course.
- When the cumulative grade point average is below 3.0 at the end of the third academic quarter or any time thereafter.
- For failure to maintain appropriate academic standing or violation of academic integrity.

Following review, the Graduate Education Committee may recommend:

- Dismissal.
- Appropriate remedial action within a specified period of time.
- Other action appropriate to the specific cause under review.

Any student reviewed by the Graduate Education Committee and found to be academically deficient will either be recommended for dismissal or placed in a probationary status until a satisfactory academic standing is achieved. Specific details of these policies can be obtained from the Office of the Associate Dean for Graduate Education.

Because the Masters level graduate programs (MPH, MTM&H, and the first year of the MSPH and MHAP) within the Department of Preventive Medicine and Biostatistics (PMB) consist of a compressed schedule of core and elective courses over a one year period, academic progress of these students requires more frequent monitoring than that of students in multiyear programs. Accordingly, in addition to the stated policy in USU Instruction 1306, the PMB Department's policy on academic probation for these programs is as follows:

- If a student receives a grade of "C" or less in any core course or a "D" or "F" in any other course or if his/her overall GPA falls below 3.0 at the end of any academic quarter, he/she will be placed on academic probation by the department. The student, his/her Academic Advisor, and the Course Director(s), if appropriate, will develop a corrective plan of action. A memorandum from the Academic Advisor describing the student's status and the agreed upon plan of action will be presented to the student and a copy

placed in the student's official file. A copy of the memorandum will also be submitted to the Director of Graduate Programs for review.

- The student will remain on academic probation until the corrective plan is completed. All grades of "D" and "F" must have been remediated to a grade of at least a "C."
- If the student receives another grade of "C" or less in any core course or a "D" or "F" in any other course or if his/her overall GPA falls below 3.0 or does not maintain satisfactory academic standing for two consecutive quarters, the Graduate Programs Director will then refer him/her to the USU Graduate Education Committee for the process of review and possible dismissal from the program.

Sexual Harassment Policy and Procedure

Overview:

Uniformed Services University (USU) and the Graduate Education Office do not tolerate incidents of sexual harassment. All of the staff, faculty, and students should strive to maintain an environment that is inclusive and is free of harassment and hostility. However, if an incident of sexual harassment does occur, all student should understand what their reporting requirements and responsibilities are

Defining Sexual Harassment:

Sexual harassment is a form of gender based discrimination that violates Title VII of the Civil Rights act of 1964. This pertains to all federal institutions and is guided by the U.S. Equal Employment Opportunity Commission (EEOC). The EEOC defines sexual harassment as:

Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when this conduct explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work performance, or creates an intimidating, hostile, or offensive work environment.

Sexual harassment can occur in a variety of circumstances, including but not limited to the following:

- The victim as well as the harasser may be a woman or a man. The victim does not have to be of the opposite sex.
- The harasser can be the victim's supervisor, an agent of the employer, a supervisor in another area, a co-worker, or a non-employee.
- The victim does not have to be the person harassed but could be anyone affected by the offensive conduct.
- Unlawful sexual harassment may occur without economic injury to or discharge of the victim.
- The harasser's conduct must be unwelcome.

What to Do If You Are Sexually Harassed:

If an incident of sexual harassment does occur, people are encouraged to inform the harasser directly that the conduct is unwelcome and must stop. If this is not an option or the harassment continues all students can utilize their advisor, program director, and/or their dean

to discuss their concern. Additionally, all students should understand that there are mechanisms available to report incidents of sexual harassment that are independent of their academic supervisors. These specific mechanisms of these systems are based on the individual student status and are detailed below.

Military Students within the Graduate School:
Military students that are assigned to graduate education programs should report all incidents of sexual harassment and equal opportunity (EO) violations through their respective chains of command. The reporting mechanisms and investigative processes differ by each military branch and can be identified through their respective military command. Additional information is available at https://www.usuhs.edu/brigade/eeo.

Civilian Students who are Administratively Determined Federal Employees:
Civilian graduate students who are in their first three years of training, are considered to be U.S. Government Administratively Determined (AD) employees. By this status students are protected under the federal equal employment opportunity (EEO) statues that are enforced through the U.S. Equal Employment Opportunity Commission (EEOC). By extension this includes the USU Office of Equal Employment Opportunity (EEO). If a student feels that they are a victim of sexual harassment and would like to file a complaint, they may do so by contacting the USU EEO Director, Ms. Polly Saddler, at (301) 295-9732.

A complaint must be filed within 45 days of the date the discriminatory event occurred. The EEO complaint process is complex. An abbreviated summary is provided for your convenience. You can get detailed information by contacting the USU EEO office or www.eeoc.gov

The EEO complaint process is two-fold. All EEO complaints begin at the informal or pre-complaint stage. At the informal stage of the complaint process, a counselor is assigned to counsel the EEO complaint. The counselor has 30 calendar days to complete the counseling session. The counselor can request an extension for an additional 30 days for a total of up to 60 days to complete the counseling inquiry. If the issue(s) of the complaint is/are not resolved during the informal complaint stage, the aggrieved is issued a notice of right to file letter which states that he/she has 15 calendar days to file a formal complaint.

Formal complaints are accepted or dismissed by the agency IAW 29 Code of Federal Regulation (C.F.R.) Part 1614 and the Equal Employment Opportunity Commission Management Directive 110 (MD 100). If a formal complaint is accepted by the agency, it is investigated within 180 days. If the formal complaint is dismissed by the agency, the aggrieved employee can appeal the dismissal to the Equal Employment Opportunity Commission (EEOC)

Alternative Dispute Resolution (ADR) in the form of mediation is offered at the informal and formal stage of the complaint process.

Alternative Dispute Resolution (ADR) can be utilized

Civilian Students who are contract employees:
Civilian students that are contractors are subject to their employer's guidance when it comes to identifying and reporting incident of sexual harassment.

If a student here at USU is involved in an incident of sexual assault there are multiple mechanisms to receive support. The coordination of care is provided through sexual assault response coordinators (SARCs) that are available through the USU military chain of command and on NSA Bethesda. These individuals can be identified through the military branch specific chains of command or at USU website (https://www.usuhs.edu/brigade/sexual-assualt-victim-advocates). These individuals can provide additional information and direct care if needed. In addition to this, there are several hotlines available where a student can report an incident of sexual assault by name or anonymously. NSA Bethesda provides a 24/7 hotline, which can be contacted at 301-442-8225. Additionally, the Department of Defense (DoD) provides access to a 24/7 hotline through the Rape, Abuse, and Incest National Network (RAINN) and can be contacted at 1-877-995-5247.

The services that are provided to victims of sexual assault are dependent on the student's individual status:

- If the victim is a military service member, these resources are available for any sexual assault regardless of the location of the assault, the identity of the assailant, or the timeframe in which it was committed.

- If the victim is a civilian student assaulted by a military service member, whether on or off the NSA Bethesda campus, the incident should be reported through a SARC. In this scenario, the care for the victim and investigation will be conducted through the military.

- If the victim is a civilian student assaulted by another civilian on the NSA Bethesda campus, the sexual assault can be reported to a SARC. Initial care and support will be provided by the military system and further care will be coordinated with civilian organizations.
- If the victim is a civilian student assaulted by another civilian outside of the NSA Bethesda campus, the assault should be reported through local law enforcement.

Inclement Weather Policy

The USU program in graduate education will follow the guidance of OPM regarding delayed opening/closure:

1. If there is a delayed opening, the delay will be from 0730. Accordingly, in the case of a two-hour delay, the formal academic day will begin at 0930 and educational activities scheduled before the delay (0730-0930) are cancelled and will be rescheduled. When considering the specific guidance of OPM regarding the role of students as essential personnel (below), please recognize that you are authorized to "report for work" at the

time of the delayed opening. In other words, in the event of a two-hour delay, our school day begins at 0930. Missed classes will be rescheduled as needed.

2. If OPM announces a closure, then all scheduled academic activities for the day are cancelled and will be rescheduled as needed.
3. If OPM announces “Open with Option for Unscheduled Leave or Unscheduled Telework”, classes will be held as scheduled unless the instructor involved notifies you otherwise. Such notification must be provided not less than two hours before the beginning of the scheduled teaching activity.
4. Please be aware that GEO personnel may telework anytime weather conditions warrant this.

Graduate students involved in research are typically reluctant to let weather get between them and their experiments. If this is the case for you, please use appropriate care as you move about in bad weather.

Per OPM Guidance, employees designated as essential personnel (all military and civilian students, faculty personnel, and teaching support staff with teaching and/or clinical responsibilities for that day) are expected to report for work on time unless otherwise authorized. Classes may be rescheduled, if delayed or canceled, by the Deans of USUHS Schools and announced to the faculty and students.

NOTE: YOU WILL HEAR ONE OF THE MESSAGES BELOW WHEN YOU CALL 301-295-3039 DURING PERIODS OF INCLEMENT WEATHER.

COLOR CODE	MESSAGE NO.	MESSAGE
GREEN	MESSAGE 1	"This is the Uniformed Services University of the Health Sciences. The University is open. All employees are expected to report to work on time. Students will report to classes as scheduled. Code "GREEN" is in effect for the University."
YELLOW	MESSAGE 2	"This is the Uniformed Services University of the Health Sciences. OPM has announced an unscheduled leave policy. The University is open. Due to the existing weather conditions, employees may take leave without prior approval. However, employees should inform their supervisors of their intentions. Students, faculty and staff required for teaching support are defined as essential personnel and are expected to report for work on time, within the bounds of safety and common sense. Emergency personnel or those entrusted with patient or animal care, or emergency facilities or research requirements as designated by their Activity Heads or Chairs are expected to report to work on time unless other arrangements have been made. Code "YELLOW" is in effect for the University."
BLUE	MESSAGE 3	"This is the Uniformed Services University of the Health Sciences. OPM has announced an adjusted home departure policy of ____ hour(s). The University is open. Due to the existing weather conditions, employees should adjust their normal home departure time consistent with the OPM announcement. Students, faculty and staff required for teaching support are defined as essential personnel and are expected to report for work on time, within the bounds of safety and common sense. Emergency personnel or those entrusted with patient or animal care, or emergency facilities or research requirements as designated by their Activity Head or

		Chairs are expected to report to work on time unless other arrangements have been made. Code "BLUE" is in effect for the University."
ORANGE	MESSAGE 4	"This is the Uniformed Services University of the Health Sciences. OPM has announced an adjusted home departure/unscheduled leave policy of ____ hour(s). The University is open. Due to the existing weather conditions, employees should adjust their normal home departure time consistent with the announcement. Employees may take leave without prior approval, but they should inform their supervisors if they plan to take leave. Students, faculty and staff required for teaching support are defined as essential personnel and are expected to report for work on time, within the bounds of safety and common sense. Emergency personnel or those entrusted with patient or animal care, or emergency facilities or research requirements as designated by their Activity Heads or Chairs are expected to report to work on time unless other arrangements have been made. Code "ORANGE" is in effect for the University."
RED	MESSAGE 5	"This is the Uniformed Services University of the Health Sciences. OPM has announced that the Federal Government is closed. Due to the extreme weather conditions, the University is closed. Students, faculty and staff required for teaching support or essential personnel are NOT to report to class. However, all emergency personnel who are entrusted with patient or animal care, or emergency facilities or requirements as designated by their Activity Heads or Chairs are to report to work. Code "RED" is in effect for the University."
WHITE	MESSAGE 6	"This is the Uniformed Services University of the Health Sciences. The status on opening, closing or a possible unscheduled leave or adjusted home departure policy for the University and all Federal Agencies in the Washington METRO area is pending an official announcement from the Office of Personnel Management (OPM). This message will be updated in accordance with the OPM announcement. Code "WHITE" is in effect for the University."

COURSE DESCRIPTIONS

LIST OF COURSES

PMO539	Global Health II (4)	GPH	93
PMO540	Intro to Environmental and Occupational Health (4)	OEHS	75
PMO541	Advanced Environmental Health (3)	OEHS	75
PMO542	Clinical Occupational and Environmental Medicine (3)	DEPT	103
PMO548	Joint Health Operations (5)	GPH	93
PMO549	Principles of Toxicology (3)	OEHS	75
PMO550	Industrial Hygiene I and Laboratory (4)	OEHS	75-76
PMO552	Assessing and Managing Occupational Exposures (4)	OEHS	76
PMO553	Industrial Hygiene Field Studies (1)	OEHS	76
PMO555	Industrial Ventilation (4)	OEHS	76
PMO558	Fundamentals of Clinical Occupational Health Environmental & Preventive Medicine (1)	DEPT	103-104
PMO560	Principles & Practice of Tropical Medicine (6)	GPH	93-94
PMO561	Medical Parasitology (3)	GPH	94
PMO563	Tropical Medicine Practicum (1-12)	GPH	94
PMO564A	Epidemiology and Control of Arboviruses (2)	GPH	94
PMO564B	Laboratory Techniques in Arbovirology (4)	GPH	95
PMO565	Vector Biology (2)	GPH	95
PMO566	Vector Physiology (4)	GPH	95
PMO567	Medical Entomology (4)	GPH	95
PMO568	Medical Acarology (4)	GPH	95-96
PMO569	Malaria Epidemiology and Control (3)	GPH	96
PMO570	Laboratory Methods Applied to Vector Biology (4)	GPH	96
PMO571	Biosystematics of Disease Vectors (2)	GPH	96
PMO576	Human Resource Management in Health Care (3)	HSA	88
PMO577	Introduction to GIS in Public Health (2)	GPH	97
PMO578	Remote Sensing Methods in Public Health (3)	GPH	97
PMO582	Radiation Biology (3)	OEHS	76-77
PMO584	Introduction to Health Physics (3)	OEHS	77

PMO592	Health Information Technology (2)	HSA	88
PMO595	Introduction to Complex Sample Survey Analysis (2)	EPI/BIOST	84
PMO598	Health Care Economics (3)	HSA	88-89
PMO599	Introduction to Health Risk Communication (2)	OEHS	77
PMO600	Fundamentals of Human Physiology (2)	OEHS	77
PMO601	Environmental Health Risk Assessment (2)	OEHS	77-78

PMO602	Air Pollution and Waste Management (3)	OEHS	78
PMO604	Hydrology, Water Treatment & Wastewater Treatment (3)	OEHS	78
PMO605	Analytical Instrumentation Methodologies in Environmental Health (3)	OEHS	78
PMO607	Environmental Chemistry (4)	OEHS	78-79
PMO608	Doctoral Seminar (1)	DEPT	104
PMO610	General Entomology (2)	GPH	97
PMO611	Classic Studies in Epidemiology (2)	EPI/BIOST	84
PMO613	Public Health Issues of Disasters in Developing Countries (4)	GPH	97
PMO614	Tropical Medicine Rounds (2)	GPH	97-98
PMO615	Sand Flies and Disease (3)	GPH	98
PMO631	OEHS Journal Club (1)	OEHS	79

PMO642	Clinical Preventive Services and Selected Topics in Occ. Health (3)	DEPT	104
PMO651	Human Factors Engineering (3)	OEHS	79
PMO652	Occupational Ergonomics (2)	OEHS	79
PMO654	Safety Engineering (3)	OEHS	79
PMO655	Current Issues in Safety and Injury Prevention (1)	DEPT	104
PMO661	Current Topics in Preventive Medicine & Biostatistics (1)	DEPT	104-105
PMO670	Public Health Practicum (1-6)	DEPT	105
PMO671	Introduction to the MPH Project and Practicum (1)	DEPT	105
PMO672	MPH Project/Practicum Design and Development (1)	DEPT	105
PMO673	MPH Project/Practicum Implementation and Evaluation (1)	DEPT	105-106
PMO674	MPH Independent Project (3)	DEPT	106

PMO675	DRPH Public Health Practicum	DEPT	106
PMO676	Mindfulness Based Stress Reduction (2)	DEPT	106
PMO680	Introduction to Public Health (1)	DEPT	106
PMO682	History of Preventive Medicine (2 or 4)	DEPT	107
PMO683	Critical Reading Seminar (2)	DEPT	107
PMO684	Clinical Research Seminar (1)	DEPT	107
PMO688	Information Gathering in Clinical Medicine (2-12)	DEPT	107-108

PMO691	Teaching Practicum (3)	DEPT	108
PMO760	Tropical Medicine Research Tutorial (1-12)	GPH	98
PMO763	Tutorial in Vector Biology & Parasitology (1-12)	GPH	98
PMO764	Tutorial in Aquatic Biology (4)	GPH	99
PMO810	Integrated Pest & Vector Management (2)	GPH	99
PMO811	Independent Study in Epidemiology (1-12)	EPI/BIOST	108

PMO841	Aerospace Operational Physiology I (3)	OEHS	79-80
PMO845	Human Factors in Aviation (3)	OEHS	80
PMO848	Special Topics in Aerospace Medicine (2-3)	OEHS	80
PMO900	Introduction to Clinical Trials (2)	DEPT	108
PMO911	Research in Epidemiology (1-12)	EPI/BIOST	108
PMO926	Health Services Administration Directed Research (1-12)	HSA	89
PMO940	Environmental/Occupational Health Directed Studies (1-15)	OEHS	80
PMO941	Environmental/Occupational Health Directed Research (1-15)	OEHS	81
PMO942	Environmental/Occupational Health Directed Rotations (1-15)	OEHS	81
PMO963	Directed Field Research (1-12)	GPH	99
PMO964	Research in Vector Biology and/or Parasitology (1-15)	GPH	99
PMO970	Directed Studies in Preventive Medicine (1-12)	DEPT	109
PMO971	PMB Doctoral Student Journal Club (1)	DEPT	109
PMO973	Occupational and Environmental Medicine (OEM) Journal Club (1)	DEPT	109
PMO974	General Preventive Medicine (GPM) Journal Club (1)	DEPT	109
PMO990	Travel Medicine (2)	GPH	99-100

PMO991 Ethics in Public Health	GPH	100
PMO992 Travel Clinic Practicum (1)	GPH	100
PMO996 Clinical Trials Design and Analysis (2)	DEPT	110

PMO997 Field Epidemiology (2)	EPI/BIOST	84
PMO998 Foundations of Leadership (1)	HSA	89
PMO1005 Strategic Planning & Marketing for Health Care Systems (3)	HSA	89
PMO1007 Advanced Seminar in Global Health Policy (3)	HSA	90
PMO1008 Independent Study in GIS (1-12)	GPH	100
PMO1009 Domestic Disaster Management & Response (3)	GPH	100-101
PMO1010 Diversity and Leadership (2)	HSA	90
PMO1011 Quant. Anal. & Methods for Health Leaders and Executives I (3)	HSA	90
PMO1012 Quant. Anal. & Methods for Health Leaders and Executives II (3)	HSA	90-91
PMO1013 Molecular Parasitology (3)	TPH	101
PMO1015 MHAP Residency (12)	HSA	91
PMO1017 Health Context Analysis (3)	GPH	101
PMO1020 Global Health Systems Distance Learning (3)	GPH	101
PMO1021 Occupational Noise Control (3)	OEHS	81
PMO1023 Global Mental Health (3)	GPH	101-102
PMO1024 The Constitution; Public Health and the Body Politic (1)	DEPT	110
PMO1025 Global Health and Development (4) -(DL only)	GPH	102
PMO1026 Current Issues in Health Care Administration & Policy (2)	HSA	91
PMO1027 Managerial Epidemiology (3)	HSA	91
PMO1028 An Introduction to Machine Learning (3)	EPI/BIOST	85
PMO1029 Occupational Noise Control (Distributed Learning) (3)	OEHS	81
PMO1030 Introduction to Data Management	EPI/BIOST	85
PMO1031 Global Health 3 (4) (DL only)	GPH	102-103
PMO1032 Practical Monitoring and Evaluation (3) (DL only)	GPH	103

OCCUPATIONAL AND ENVIRONMENTAL HEALTH SCIENCES (OEHS)

PMO540 INTRODUCTION TO ENVIRONMENTAL AND OCCUPATIONAL HEALTH

This course provides a broad exposure to basic environmental health subjects, including toxicology, epidemiology, indoor and outdoor air quality, food service sanitation, insects and rodents, environmental noise, energy, drinking water treatment, wastewater treatment, solid waste disposal, injury control, the workplace, risk assessment, risk communication, and environmental regulations. Discussions will cover the specific, general and global issues associated with these environmental health topics. Several site visits are scheduled during the course which will reinforce understanding of selected topics.

Prerequisites: None

Pre-Fall | Stubner/Benchoff | 4 Quarter Hours/Graded

PMO541 ADVANCED ENVIRONMENTAL HEALTH

Provide the student with advanced instruction on environmental health subject areas typically encountered by a public/global health professional. Upon completion of this course, a student will be able to discuss issues relating to general environmental health in high-, middle-, and low-income countries, and austere environments to include military deployed settings. This course will consist of student presentations, a mid-term, and a comprehensive final exam. In addition to the graded course content, qualified students will be provided the opportunity to study for and take the Registered Environmental Health Specialist (REHS) credentialing exam.

Prerequisites: PMO 540 and Concurrence of Course Director

Fall | Benchoff/Stubner/Lewandowski | 3 Quarter Hours/Graded

PMO549 PRINCIPLES OF TOXICOLOGY

This course examines basic concepts of occupational and environmental toxicology, including absorption, distribution, metabolic conversion, and elimination of xenobiotics, as well as mechanisms of toxicity and the interaction of xenobiotic agents with human organ systems. The course focuses on the application of these concepts to the assessment of exposures, estimates for risk of disease, development of appropriate exposure limits, and prevention of morbidity and mortality resulting from toxic environmental exposures.

Prerequisites: MD/DO, or Concurrence of Course Director.

Fall | Krahl/Condie | 3 Quarter Hours/Graded

PMO550 INDUSTRIAL HYGIENE I AND LABORATORY

This course will cover the essentials of the practice of industrial hygiene through the concepts of hazard anticipation, recognition, evaluation and control. It is designed as an overview for those students with limited prior experience in industrial hygiene. Topics covered include threshold limit values and OSHA exposure limits, calculations of exposure data, classification of agents, monitoring techniques for particulates and gases/vapors, introduction to ventilation principles, noise, respiratory protection practices and physical hazards. The laboratory will familiarize students with commonly used industrial hygiene sampling equipment. Laboratories will emphasize calibration of sampling pumps, direct reading gas/vapor sampling equipment, sampling particulates, industrial ventilation, and industrial noise.

Prerequisites: Concurrence of Course Director

Winter | Benchoff/Stubner | 4 Quarter Hours/Graded

PMO552 ASSESSING AND MANAGING OCCUPATIONAL EXPOSURES

This course provides an in-depth study of specific industrial hygiene topics that are vital to advanced practice of industrial hygiene. Mastery of these topics will provide students with a solid background to prepare for certification examinations in industrial hygiene and to have an academic knowledge of industrial hygiene that is congruent with managing industrial hygiene programs. Upon completion of this course, students should be able to understand the origins and applications of Threshold Limit Values (TLVs) to a variety of chemical and physical hazards that are encountered in dynamic work environments. In addition, students will gain an understanding of how these TLVs are related to specific and non-specific health effects and what sampling methodology and control measures can be utilized to manage potential adverse health effects from occupational exposures to chemical and physical agents.

Prerequisites: PMO550 and Concurrence of Course Director

Fall | Benchoff | 4 Quarter Hours/Graded

PMO553 INDUSTRIAL HYGIENE FIELD STUDIES

This course is designed to familiarize the student with functional industrial hygiene operations. This will be accomplished by a series of lectures that support field trips to military and civilian work sites. Industrial facilities will be toured and industrial hygiene operations reviewed on site. The practice of industrial hygiene in the workplace will be demonstrated.

Prerequisites: PMO550 and Concurrence of Course Director

Summer | Stubner/Benchoff | 1 Quarter Hour/Graded

PMO555 INDUSTRIAL VENTILATION

This course is intended to give in-depth instruction in design and testing of local exhaust hoods and industrial ventilation systems. The course will cover contaminant generation, principles of air flow, general and contaminant-specific hoods, duct sizing and layout, ventilation system balancing, fan selection, air cleaning devices, and ventilation system testing. Upon completion of the course, the student should be able to correctly design and evaluate existing designs of industrial ventilation systems for correctness.

Prerequisites: PMO550 and Concurrence of Course Director

Spring | Benchoff/Stubner | 4 Quarter Hours/Graded

PMO582 RADIATION BIOLOGY

The use of ionizing radiation in medical and industrial applications continues to expand. For example, approximately 320 million diagnostic medical and dental x-ray procedures are performed each year in the US. This fact highlights the need to study and quantify the stochastic (chronic) and non-stochastic (acute) effects of ionizing radiation. At the end of the course the student will demonstrate an understanding of the fundamentals of ionizing radiation interactions with matter, human radiation exposure scenarios, fundamentals of radiation chemistry and cellular radiobiology, biological effects of low doses of ionizing radiation (chronic effects), radiation risks in perspective, biological effects of high doses of ionizing radiation (acute effects), and radiation accidents and biodosimetry.

Prerequisites: Concurrence of Course Director

Spring | Blakely | 3 Quarter Hours/Graded

PMO584 INTRODUCTION TO HEALTH PHYSICS

Upon the completion of the course, students will be able to: Describe the various modes of decay, determine the types of equilibrium achievable for chains of nuclides, describe the basic interaction mechanisms for all types of ionizing radiation, describe the various components of a radiation safety program, recognize naturally occurring and man-made radionuclides, calculate equilibrium activities and specific activities, understand the difference between SI units and traditional units of measure used in health physics, and determine external and internal dose based on simplified scenarios.

Prerequisites: Concurrence of Course Director

Fall | Champine | 3 Quarter Hours/Graded

PMO599 INTRODUCTION TO HEALTH RISK COMMUNICATION

This course is an introduction to the basic principles of risk communication theory and practice. The student is oriented to the fundamentals, principles, and processes that have proven effective in communicating health risk in a high concern / low trust environment. Students are guided through the process of responding to difficult questions from a hostile or suspicious audience, of identifying key stakeholders, and working with the media. Students will, while working in a small group, develop and present a risk communication strategy for a provided scenario.

Prerequisites: Concurrence of Course Director

Pre-fall | Stubner/Benchoff | 2 Quarter Hours/Credit

PMO600 FUNDAMENTALS OF HUMAN PHYSIOLOGY FOR PUBLIC HEALTH

The objective of this class is to familiarize the student with the concepts and principles involved in human physiology. It is assumed that the student has limited or no background in human physiology or the biological sciences. The class will also benefit students who need a refresher course in physiology. It will provide a basic foundation in physiology and prepare non-clinicians for further study in toxicology. PMO549 Principles of Toxicology (MSPH requirement) and several electives throughout the department of toxicology. The major topic areas covered are cell physiology, genetics, cardiovascular and respiratory systems, digestive system, nervous system, immune system, endocrine system, and exercise physiology, the various systems of the body, metabolism and exercise physiology basic nutrition and the relevance of having a basic understanding of human physiology to public health through lecture, discussion and case studies. **THIS COURSE WILL NOT BE OFFERED IN 2020/2021**

Prerequisites: None

Fall | TBD | 2 Quarter Hour/Graded

PMO601 ENVIRONMENTAL HEALTH RISK ASSESSMENT

Risk assessment impacts many disciplines and various tools are used to evaluate and quantify risk. Environmental Health risk assessment will be covered in depth using the EPA Risk Assessment Guidelines for Superfund sites. Topics to be covered are toxicology concepts, genetics, cancer, animal toxicology studies, exposure assessments,

environmental data collection considerations, and tools used in risk analysis and risk assessment. A comprehensive project will reinforce understanding of a risk assessment.

Prerequisites: PMO540 and Concurrence of Course Director

Winter Benchoff/Stubner/Beeman 2 Quarter Hours/Graded

PMO602 AIR POLLUTION AND WASTE MANAGEMENT

This course provides an introduction to environmental science and engineering for public health students interested in a deeper understanding of air pollution and waste management topics. Quantitative methods will be used to solve environmental problems involving physical and chemical processes. Students will learn concepts related to air pollution, global atmospheric change, solid waste management, and hazardous waste treatment. This course is designed as the first part of a two course environmental science and engineering sequence with PMO604 Hydrology Water Treatment, and Wastewater Treatment; although each course can be taken independently.

Prerequisites: PMO540 and Concurrence of Course Director

Winter Stubner/Beeman/Lewandowski 3 Quarter Hours/Graded

PMO604 HYDROLOGY, WATER TREATMENT AND WASTEWATER TREATMENT

Students will learn concepts related to surface water and groundwater hydrology; water and wastewater treatment plant design; and the physical and chemical processes involved in water and wastewater treatment. Students will be able to carry out material balances and solve problems involving basic water chemistry concepts. Given a moderately complex water quality problem requiring treatment, students will be able to determine if the processes meet industry guidelines or public health standards.

Prerequisites: PMO540 and Concurrence of Course Director

Spring Benchoff/Stubner/Beeman 3 Quarter Hours/Graded

PMO605 ANALYTICAL INSTRUMENTATION METHODOLOGIES IN ENVIRONMENTAL HEALTH

Students will examine the major instrumental methodologies used in the quantitative and qualitative analysis of samples taken during environmental health risk assessment or environmental health surveillance procedures. Methods examined will include gas chromatography mass spectroscopy, inductively coupled plasma spectrometry, ion mobility spectrometry, and liquid chromatography. For each methodology the student will learn the scientific basis, equipment set-up and procedures, limitations, interferences, calibration, and sample preparation. The course is conducted through lectures, demonstrations and laboratory exercises. The course grade is based on two examinations and course participation.

Prerequisites: Concurrence of Course Director

Winter Whitaker/Benchoff/Stevens 3 Quarter Hours/Graded

PMO607 ENVIRONMENTAL CHEMISTRY

This course will provide students with the knowledge and experience needed to predict, study, and describe the origin and distribution of xenobiotic chemical species, and their properties that affect uptake into biological systems.

Prerequisites: PMO540

Spring | Whitaker/Stevens | 4 Quarter Hours/Graded

PMO631 OCCUPATIONAL AND ENVIRONMENTAL (OEHS) JOURNAL CLUB

This course will provide students with the knowledge and skills needed to critically read and evaluate a scientific journal article and serve as a forum for discussion of topics in environmental and occupational health including current research, classic case studies, emerging technology, and new or ongoing issues in the field. These discussions are geared to supplement and enhance classroom knowledge and field experience.

Prerequisites: None

Winter/ Spring | Stubner | 1 Quarter Hour/Credit

PMO651 HUMAN FACTORS ENGINEERING

This course is a practical introduction to the application of human physical, perceptive and cognitive abilities and behaviors, human performance engineering design criteria, and human factors principles and practices to the design of systems, subsystems, equipment and facilities. Particular emphasis is placed on the challenges of integration of the human to the machine and machine to human. Topics include basic human factors research and design methods, perception, cognition, information reception and processing, decision theory, memory, judgment, performance capabilities and limitations in human-machine systems. **THIS COURSE WILL NOT BE OFFERED IN 2020/2021**

Prerequisite: Concurrence of Course Director

Winter | TBD | 3 Quarter Hours/Graded

PMO652 OCCUPATIONAL ERGONOMICS

This introductory course focuses on fundamental ergonomic principles involved in understanding the interactions among the worker, workplace, and job tasks and how these interactions can impact work and health outcomes. Particular emphasis is placed on the recognition and prevention/control of work-related musculoskeletal disorders. Topics covered include basic concepts of Anthropometrics, Biomechanics, and Work Physiology, major sources of occupational ergonomic exposures, and considerations in the development of ergonomic programs.

Prerequisite: Concurrence of Course Director

Fall | Benchoff/Stubner/Pentakis | 2 Quarter Hours/Graded

PMO654 SAFETY ENGINEERING

Survey of safety concepts, legal concepts, qualitative and quantitative hazard evaluation, hazard classification, system life cycle safety applied to the design of tools, equipment and the environment to eliminate or control occupational safety hazards. Topics include systems safety analyses, fault hazard analysis, failure mode and effects analysis, fault tree analysis, errors and risk assessment codes. **THIS COURSE WILL NOT BE OFFERED IN 2019/2020**

Prerequisite: Concurrence of Course Director

Spring | TBD | 3 Quarter Hours/Graded

PMO841 AEROSPACE OPERATIONAL PHYSIOLOGY I

This course introduces students to aerospace physiology. It involves lectures, readings, and discussions that review the history and physiological issues related to exposure to high altitudes. Emphasis is placed on the physical nature of the atmosphere as well as respiratory/circulatory anatomy and physiological effects of exposure to decreased atmospheric pressure. Aircraft and flight equipment designs to counter the physiological threats are included.

Prerequisites: Concurrence of Course Director

Fall Condie 3 Quarter Hours/Graded

PMO845 HUMAN FACTORS IN AVIATION

This course will introduce the student to the multifaceted concept of human factors in aviation. It will discuss the impact of human limitations and human interaction in the flight environment. Emphasis will be placed on identifying the role of human factors in aircraft mishaps. The course will also include preventive techniques used to reduce human error. Crew/Cockpit Resource Management Training teaches crews to use all the resources available to them to increase mission effectiveness and flight safety. Secondly, Operational Risk Management attempts to identify hazards and alleviate or compensate for them. Lastly, technical advances enable more realistic simulator training to better prepare crews for high threat contingencies. At the completion of the course the student will be able to effectively evaluate aviation related CRM/ORM issues.

Prerequisites: Permission of Course Director, PMO841

Winter Condie 3 Quarter Hours/ Graded

PMO848 SPECIAL TOPICS IN AEROSPACE MEDICINE

Focus is current medical issues within Aerospace Medicine and physiology. Topic theme can vary annually depending on student/faculty interest. Themes can include medicine in extreme environments, diving medicine, wilderness medicine, hyperbaric medicine to mention a few. Each theme will be dealt from both a physiologic and clinical viewpoint while keeping in mind that overarching principles of preventive medicine and public health.

Prerequisites: Concurrence of Course Director

Spring Condie 2-3 Quarter Hours/Graded

PMO940 ENVIRONMENTAL/OCCUPATIONAL HEALTH DIRECTED STUDIES

This course is designed primarily for MSPH EOH and Ph.D. EHS students working independently to explore a defined topical area or problem. Exceptions for other students can be made with the approval of their Advisor. The student will conduct an independent study project concerning some specific aspect of environmental health, industrial hygiene or occupational health under the close supervision of his/her academic advisor. Selected students may utilize this independent study option to expand their knowledge in selected subject areas relative to the public health or occupational medicine and general preventive medicine residencies. Enrolled students must submit a study plan to the course instructor for approval at the beginning of the term. Credits are assigned commensurate with the complexity of the plan.

Prerequisites: Concurrence of Course Director

All Benchoff/Stubner 1-15 Quarter Hours/Credit

PMO941 ENVIRONMENTAL/OCCUPATIONAL HEALTH DIRECTED RESEARCH

This course is designed primarily for MSPH EOH and Ph.D. EHS students working independently to explore a defined topical area or problem. Exceptions for other students can be made with the approval of their Advisor. The student will conduct an independent research project in environmental and/or occupational health or industrial hygiene under supervision of his/her academic advisor. The research project will be designed to involve field studies, laboratory studies, and/or a policy study. Enrolled students must submit a study plan to the course instructor for approval at the beginning of the term. Credits are assigned commensurate with the complexity of the plan.

Prerequisites: Concurrence of Course Director

All | Benchoff/Stubner | 1-15 Quarter Hours/Credit

PMO942 ENVIRONMENTAL/OCCUPATIONAL HEALTH DIRECTED ROTATIONS

The student will gain relevant experience and specified knowledge, skills, and abilities while working closely with a mentor. The directed rotation will cover staff and technical functions of environmental/occupational health and/or industrial hygiene to include laboratory, field, and policy situations.

Prerequisites: Concurrence of Course Director

All | Benchoff/Stubner | 1-15 Quarter Hours/Credit

PMO1021 OCCUPATIONAL NOISE CONTROL

Provide the student with broad exposure to occupational noise control techniques. Concepts involving ear anatomy and physiology and hearing loss characteristics will be discussed. Practices involving noise measurement, interpretation, and comparison to noise standards will be examined. Practical industrial/environmental noise control solutions will be reviewed.

Prerequisites: None

Spring | Schaal/Benchoff/Stubner | 3 Quarter Hours/Graded

PMO1029 OCCUPATIONAL NOISE CONTROL (DISTRIBUTED LEARNING)

Provide the student with broad exposure to occupational noise control techniques. Concepts involving ear anatomy and physiology and hearing loss characteristics will be discussed. Practices involving noise measurement, interpretation, and comparison to noise standards will be examined. Practical industrial/environmental noise control solutions will be reviewed. Industrial site visits scheduled during the course will reinforce understanding of selected topics.

Prerequisites: None

Spring | Schaal/Stubner | 3 Quarter Hours/Graded

EPIDEMIOLOGY AND BIOSTATISTICS (EPI/BIOST)

PMO502 INTRODUCTION TO SAS

This hands-on course is designed for students who want to perform statistical analyses using SAS, a popular statistical software package. The course will cover basic skills in writing SAS programs, managing data, and performing various statistical procedures covered in PMO504. Concepts and techniques covered will also be useful when using other statistical software packages.

Prerequisites: PMO503, PMO504 concurrently

Winter | Kao | 1 Quarter Hour/Graded

PMO503 BIOSTATISTICS I

This course instructs students in the application of elementary statistical procedures commonly used in biomedical and public health research. Topics include techniques of exploratory data analysis, probability, discrete and continuous statistical distributions, sampling procedures, confidence intervals, hypothesis testing, and sample size determination for experiments and observational studies.

Prerequisites: None

Fall | Olsen/Ahmed | 4 Quarter Hours/Graded

PMO504 BIOSTATISTICS II

This continuation of PMO503 covers many of the advanced statistical procedures commonly used in biomedical and public health research. Statistical methods include techniques for the analysis of contingency tables or frequency data, non-parametric methods, simple linear regression and correlation, analysis of variance, multiple regression, logistic regression, and analysis of survival data.

Prerequisites: PMO503

Winter | Chen | 4 Quarter Hours/Graded

PMO508 BIOSTATISTICS III

This course instructs students in understanding the concepts of more advanced statistical methods, using the SAS statistical package. Topics include: basic concepts of matrix algebra used in biostatistics, introduction to generalized linear models, maximum likelihood estimation, advanced analysis of multiple linear regression, analysis of covariance, Poisson regression, advanced binary logistic regression, multinomial logistic regression, logistic regression for matched studies, generalized estimating equations (GEE), review of survival analysis, and Cox Proportional Hazards regression.

Prerequisites: PMO502 and 504

Spring | Kao | 5 Quarter Hours/Graded

PMO511 INTRODUCTION TO EPIDEMIOLOGY

This course introduces the student to basic epidemiologic principles. The course focuses first on the measurement of disease and then transitions to instruction on basic principles of study design. Instruction is provided through lectures and small-group exercises.

Prerequisites: None

Fall Singer/Mancuso 4 Quarter Hours/Graded

PMO512 EPIDEMIOLOGIC METHODS

This course expands upon the basic concepts of epidemiology presented in PMO511. Methodological issues discussed include sampling, measurement error, bias, confounding, interaction, and study design.

Prerequisites: PMO503, 511, concurrent enrollment in 504

Winter Scher/Rusiecki 4 Quarter Hours/Graded

PMO513 ADVANCED EPIDEMIOLOGIC METHODS

This applied course is directed to MPH and PhD students wanting to expand their theoretical knowledge and to apply the concepts developed in Introduction to Epidemiology (EPI I) and Epidemiologic Methods (EPI II) (PM0511 and PM0512) in the analysis and interpretation of epidemiological data. The main emphasis of PM0513 is on study designs, data analysis and the appropriate interpretation of findings. The course will include hands-on experience in the analysis and interpretation of epidemiologic data. Each week the lecture/discussion will address a topic of importance for conducting and understanding results from epidemiologic analyses, followed by a lab session where students will learn to apply the concepts discussed in the lecture to epidemiologic data. Students will use STATA for data analysis and to illustrate concepts presented during lectures.

Prerequisites: PMO503, 504 511, 512 and Concurrence of Course Director

Spring Byrne 4 Quarter Hours/Graded

PMO514 EPIDEMIOLOGY AND CONTROL OF INFECTIOUS DISEASES

The natural history, distribution patterns, and risk factors of selected infectious diseases are discussed. Strategies for prevention or control are derived from such epidemiologic concepts as natural reservoir, modes of transmission, in apparent versus apparent infections, herd immunity, and the effects of immunization. Student participation in case studies and presentations will constitute a major part of the course.

Prerequisites: PMO511, Concurrence of Course Director

Winter Tribble 3 Quarter Hours/Graded

PMO515 CHRONIC DISEASE EPIDEMIOLOGY AND CONTROL

This course addresses the epidemiology of significant chronic diseases in the US and global populations, to include definitions, distribution patterns, pathophysiology, and risk factors of etiologic or prognostic significance. Strategies for population-based control of these diseases are evaluated in terms of their effectiveness and accessibility. Prerequisites: PMO511, 512, Concurrence of Course Director

Spring Reimann/Costello/Zhu 2 Quarter Hours/Graded

PMO519 OCCUPATIONAL AND ENVIRONMENTAL EPIDEMIOLOGY

This course emphasizes the epidemiologic methods/tools used in assessing occupational and environmental risk factors. A series of paper reviews/critiques, exercises and lectures are integrated in order to teach various methodologic and analytic approaches to studying the relationship between occupational and environmental exposures and outcome measures in specific populations.

Prerequisites: PMO503, 504A, 511, 512

Spring Rusiecki 3 Quarter Hours/Graded

PMO522 META-ANALYSIS

Using interactive, small group self-directed learning techniques, the course objectives are to (1) understand the strengths and weaknesses of meta-analysis and when the method is appropriate; (2) understand the steps of meta-analysis, including question definition, literature review, data abstraction, analysis and publication; and (3) understand the theory and statistical methods of meta-analysis including fixed and random effects models, tests of heterogeneity, publication bias, file drawer tests, and sensitivity analysis. By the conclusion of the course, students will have the skill set necessary to conduct a meta-analysis.

Prerequisites: PMO503, 511 & Concurrence of Course Director

Spring Douglas 1 Quarter Hour/Credit

PMO595 INTRODUCTION TO COMPLEX SAMPLE SURVEY ANALYSIS

This course is developed to enable the students to do basic statistical analysis based on the complex surveys with sample weights. Such population complex surveys have been conducted in U.S. for civilians and military personnel. Well-known surveys are: the third National Health and Nutrition Examination Surveys (NHANSES III) funded by the National Center for Health Statistics (NCHS), Center for Disease Control and Prevention (CDC), and surveys of Health-Related Behaviors among Military Personnel (HRB) funded by the Department of Defense (DOD). A real data extracted from one of the HRB will be used to illustrate the concepts in complex surveys and related statistical analyses. Statistical software, SAS-callable SUDAAN (by performing the statistical analysis of complex survey under the SAS environment) using SAS will be taught. Prior knowledge in using SAS, one of the popular statistical software is not required, although it is preferred. Lectures, labs for statistical analysis using SUDAAN, and written assignment for homework problems will be used throughout the course.

Prerequisites: PMO504 or Approval of the Course Director

Spring Kao 2 Quarter Hour/Graded

PMO611 CLASSIC STUDIES IN EPIDEMIOLOGY

Students will analyze the original articles in the medical literature that formed the basis for current practices in epidemiology. Focus will be on the conceptual and methodologic advances in the field. Articles will be selected for discussion based on their quality, originality and, above all, on their influence on the field of epidemiology. Definitions of “classic” studies vary, but we will concentrate on those which changed the way epidemiologic studies are conducted and the way that epidemiologists think.

Prerequisites: None

Fall Lipsitz/Singer 2 Quarter Hours/Graded

PMO997 FIELD EPIDEMIOLOGY

This course uses a series of lectures and classroom-based interactive case studies to teach the principles and practice of field epidemiology, including descriptive epidemiology, outbreak investigation, population screening, and surveillance. Following completion of the course, the student should be familiar with the principles of epidemiology relevant to the field investigation of diseases of public health significance.

Prerequisites: None

Spring Reimann/Costello 2 Quarter Hours/Graded

PMO1028 AN INTRODUCTION TO MACHINE LEARNING

Machine learning is a method of data analysis that designs models and algorithms that learn from data and make predictions based on data. Being a very active field, machine learning has been used in disease diagnosis, drug discovery, human genome research, and many other scientific areas. In this course, students will learn eight supervised classification methods: Bayes classifier, nearest neighbors' classifier, classification through logistic regression, support vector machines, decision trees, bagging, random forests, and neural networks. Students will also learn two unsupervised learning approaches: K-means clustering and hierarchical clustering. The last lesson of this course is open, which can include student presentations or introducing to class an advanced topic chosen among high dimension reduction, deep learning, and state of the art machine learning techniques. The statistical R language will be emphasized in the course. Helpful examples based on disease data will be presented. There are 10-11 three-hour long lessons in this course. For each lesson, the first two hours will be given to "theoretical" delivery of machine learning, while the last hour will be devoted to the "applied" lab with R. Upon completion of the course, students are expected to have a reasonable level in understanding the fundamentals of machine learning and mastering some of the most commonly used tools and techniques in machine learning.

Prerequisites: Biostatistics I (PMO503) required, Biostatistics II (PMO504) preferred. In absence of Biostatistics II, an approval from the course director is needed.

Spring Chen 3 Quarter Hour/Graded

PMO1030 AN INTRODUCTION TO DATA MANAGEMENT

This course introduces students to the fundamentals of data management using Stata. This course is required for students who are taking PMO512 Epidemiologic Methods in the Winter Quarter- it is also strongly recommended for any MPH student who is going to use Stata or similar statistical software for their culminating MPH project. This class is not for the student who is experienced in the use of statistical software.

Prerequisites: None

Fall Scher 1 Quarter Hour/Credit

HEALTH SERVICES ADMINISTRATION (HSA)

PMO103 FUNDAMENTALS OF HEALTH CARE FINANCE

This is an introductory course designed to provide students with a solid foundation in accounting concepts critical to managerial decisions, and financial management theory and principles to guide decisions that enhance the financial viability of a healthcare organization. Beyond theoretical concepts, the course will emphasize the application of financial management and accounting principles.

Prerequisites: None

Fall Haag 2 Quarter Hours/Graded

PMO401 ESSENTIALS OF GRADUATE EDUCATION IN HEALTH ADMINISTRATION AND POLICY

This is an introductory course designed to provide health administration and policy students with a sound foundation in scholastic skills critical to academic success. Beyond theoretical concepts, the course will emphasize the application of systems and techniques to assist the student with a host of academic challenges. Expert student services representatives and research professionals from the field may be invited to provide insight on current tools and services to foster academic success.

Prerequisites: None

Pre-Fall Haag 1 Quarter Hour/Credit

PMOXXX PATIENT SAFETY FOR HEALTH SYSTEMS LEADERS AND EXECUTIVES

This course introduces and familiarizes health systems leaders and executives with the knowledge and information acquisition skills required to interpret and develop a coherent and practical system-based quality healthcare policy with a focus on the underlying safety components. The course progresses from definitions, through the dynamics of complicated and complex systems, a discussion of the various cognitive and non-cognitive causation of unintended outcomes (errors). Additionally, the course covers techniques for the reactive and proactive collection of system and human function information required for institutional learning and quality policy development, and the governance approaches resulting from and supported by a policy that facilitates the delivery of high-reliability quality care.

Prerequisites: None

Winter Marks 2 Quarter Hours/Credit

PMOXXX ACCREDITATION FOR HEALTH SYSTEMS LEADERS AND EXECUTIVES

This course aims to acquaint the health systems leaders and executives with policy-makers, legislators and health care payers growing interest in the value of organizational accreditation. It will also highlight the need to understand the escalating importance of utilizing an accreditation tool to assess accountability, to create an environment for positive performance improvement, and to respond to the community's demand for optimal health. Additionally, it will dissect the congruency or conflict between regulators' goals versus those of voluntary accreditation groups.

Prerequisites: None

Spring Henske 1 Quarter Hours/Credit

PMOXXX MHAP Program Capstone

This course assists students in successfully preparing and presenting their MHAP Capstone Projects. While the course is abbreviated with regards to its length, this class marks an important milestone in the student's education. The MHAP Capstone Project is a tool used to demonstrate the student's mastery of program competencies from the didactic portion of the MHAP program curriculum.

Prerequisites: MHAP Students Only

Summer Yoon 2 Quarter Hours/Credit

PMO523 FUNDAMENTALS OF U.S. HEALTH POLICY

This course examines the application of concepts and techniques of advocating or influencing policy on behalf of organizations, the community, and the health services industry. Legislative, executive and judiciary branches and their role in national and state policy will be discussed. Comparisons of the roles and effects of public and private policy will be conducted. The role of interest groups in the policy process, and the concept of political competence at the individual and organizational levels will be examined.

Prerequisites: None

Winter Hawks 3 Quarter Hours/Graded

PMO526 HEALTH SYSTEMS

This course provides an overview of the organization and function of health services in the U.S., including the pluralistic nature of the systems, the behavioral and economic foundations for understanding its function, major historical and legislative events that have shaped the current system, current research relating to the health system financing and staffing, and current policy issues in regard to the organization of health services. At the completion of this course, students will be able to explain the historical development of American health care, the Military Health System, and to analyze the factors that create change within the system.

Prerequisites: None

Fall Koehlmoos 4 Quarter Hours/Graded

PMO527 PRINCIPLES OF HEALTH CARE MANAGEMENT

This course provides a survey of health care management principles, including strategic and health systems planning, leadership, resource and information management, performance measurement and improvement, and organizational theory and design. The course prepares students with knowledge, skills, and attitudes appropriate to introduce a variety of topics appropriate for healthcare administration in both the Military Health System and US public and commercial health systems.

Prerequisites: None

Winter Young 2 Quarter Hours/Graded

PMO529 HEALTH CARE FINANCIAL MANAGEMENT

This course introduces students to resource the management concepts that influence an organization's financial performance. Topics include: the government resource environment, the defense resource environment, budgeting and cost analysis, accounting and finance, TRICARE contract financial incentives, and the public healthcare resource environment.

Prerequisites: PMO526 and PMO527 or Concurrence of Course Director

Spring Hawks/Marty 2 Quarter Hours/Graded

PMO532 QUALITY ASSESSMENT & IMPROVEMENT IN HEALTH CARE

This course is designed to develop a working knowledge of Lean and Six Sigma principles, process, and implementation, and provides the required application and information for taking the American Society of Quality – Six Sigma Green Belt certification exam upon completion of two Lean Projects. Lean Six Sigma is a proven performance improvement method for solving problems in any field. This course is focused on the science of improvement in healthcare. This structured approach to problem solving incorporates business process management, statistical process control, quality, and project management principles and practices with a goal of satisfying the full body of knowledge of the ASQ – Green Belt certification.

Prerequisites: Concurrence of the Course Director

Spring Gardner 2 Quarter Hours/Graded

PMO533 DECISION MAKING IN HEALTH SERVICES

Decision Making in Health Services discusses health service organizational structures and the management theories and principles necessary for effective managerial decision making in a complex health care environment.

Prerequisites: Concurrence of the Course Director

Spring | Crawford | 2 Quarter Hours/Graded

PMO535 HEALTH CARE LAW

This course provides an introduction to the law and the legal process in relation to health care administration, and is designed to provide the student an ability to deal with legal concepts in health care settings and in health care policy making. Topics include constraints that law and regulations imposed on the health care industry; liability of health care providers; bioethics; rights of patients; consent issues; and administrative law for health care organizations.

Prerequisites: Concurrence of Course Director

Winter | Smith | 2 Quarter Hours/Graded

PMO576 HUMAN RESOURCE MANAGEMENT IN HEALTH CARE

This course provides an overview of the myriad of human resource programs and challenges facing the healthcare executives in the 21st century. Learning objectives will be approached from the middle management perspective. Six essential disciplines within human resources will be covered: employment law, training, compensation and benefits, employee relations/labor relations, and health, safety, and security.

Prerequisites: None

Spring | White | 3 Quarter Hours/Graded

PMO592 HEALTH CARE INFORMATION TECHNOLOGY

This course provides an introduction to technology assessment as a tool for public policy, evidence-based health administration, and clinical decision-making. There are two modules in this course. The first module introduces medical technology assessment and its role in health systems and evaluates the priorities and strategies of the major initiatives in healthcare technology assessment. This includes an appraisal of the role of government agencies like the Centers for

Medicare and Medicaid Services, the Food and Drug Administration, and the Agency for Healthcare Research and Quality; industry entities such as the Blue Cross Blue Shield Technology Evaluation Center; and academic efforts such as the Cochrane Collaboration. The second module introduces the tools of economic evaluation of health services and interventions, to include cost-effectiveness, cost-utility, and cost-benefit analyses; and provides guidance on the presentation and use of economic evaluation results.

Prerequisite: None

Pre-Fall | Hayes | 2 Quarter Hours/Graded

PMO598 HEALTH ECONOMICS

This course applies economic concepts to: analyze health, the healthcare market and policies for healthcare. Two primary themes for this course are: public health care economics, and military health care economics. As they relate to the primary topics of the course, the primary objectives of this course are: 1) to understand the distinctive economic characteristics of health, the healthcare industry and the professional responsible for delivering health services 2) from the standpoint of economics, to analyze and evaluate, the American systems of

healthcare financing and delivery 3: to discuss multiple current policy issues such as health care costs, uncompensated care, managed care and health insurance reform.

Prerequisites: None

Winter | Richard | 3 Quarter hours/ Graded

PMO926 HEALTH SERVICES ADMINISTRATION DIRECTED RESEARCH

Students undertake selected research projects emphasizing organizational and management studies and program evaluation. At times the project will include teaching a technique or methodology. More often the study will be an actual operational problem of a health agency. At the end of the research students will be able to describe and defend the methods used and the findings discovered in a traditional scientific forum (e.g., formal presentation or journal article publication). Enrolled students must submit a study plan to the course instructor for approval at the beginning of the term. Credits are assigned commensurate with the complexity of the plan.

Prerequisites: Concurrence of Course Director

All | Richard/Faculty | 1-12 Quarter Hours/Credit

PMO998 FOUNDATIONS OF LEADERSHIP

Health professionals are among the nation's most well-educated citizens; they are expected to provide leadership in their workplace and communities, whether they are military or civilian settings. Furthermore, they will be expected to provide leadership roles in implementing changes in the provision of a sustainable health benefit and additionally, in the case of military healthcare professionals, in support of a “medically ready force” and a “ready medical force.” There are many qualities that combine to make a leader successful. This course is designed to build upon the Meta-Leadership principles and will introduce those leadership qualities necessary for successful leadership in all domains. The goal is to stimulate personal reflection that will shape an individual's personal leadership journey.

Prerequisites: None

Summer | Robb | 1 Quarter Hours/Credit

PMO1005 STRATEGIC PLANNING AND MARKETING FOR HEALTH CARE SYSTEMS

Through lectures and case exercises students learn to apply, adjust, and link institutional strategic planning principles and practices to day-to-day operations of health service delivery organizations. The focus of the course is in recognizing strategic planning as a process whereby an organization takes into careful consideration the present and future environment in which it operates, as well as the unique internal strengths of the organization. Likewise, the course will recognize and delve into the true value of the strategic planning process - the process itself, which includes an exhaustive analysis of the major internal and external stakeholders relevant to the organization. Topics include history of institutional planning in health care; evolution of theory and practice; strategic management linking mission and values with vision, direction, goals, objectives, budget, and operations; structure, process, and resource requirements for effective planning and operations; integrated planning and budgeting systems; the role of information and information analysis; monitoring results and adjusting to reality.

Prerequisite: None

Summer | Young | 2 Quarter Hours/Graded

PMO1007 ADVANCED SEMINAR IN GLOBAL HEALTH POLICY

This course will explore the policy aspects of unequal distribution of health and disease around the world and will focus on several areas related to global health policy, including the question of government responsibility for their nation's health. As part of our exploration we will analyze diverse organizational strategies, programs and public health policy initiatives for major diseases, epidemics and pandemics worldwide. Our comparative analysis will allow for a critique of national and international public health policy agendas and public health support systems with a special focus on pharmaceutical enterprises, international trade, intellectual property rights and vulnerable populations. With an eye toward global health policy reform, this course will review and question the key issues, concepts and theories related to the reform, planning, financing, organization, and management of personal care and population-oriented health systems and policy worldwide.

Prerequisite: None

Spring Riley/Bostrom 3 Quarter Hours/Graded

PMO1010 DIVERSITY AND LEADERSHIP

This course is designed to provide a framework for understanding diversity in organizations and the process of working effectively with and leading others in a multicultural environment. Students will develop an understanding of the concepts of "culture" and "diversity," the role of the multicultural leader, the essential knowledge and skills thereof, policy implications, the characteristics and systems of cultures, and the link to organizational effectiveness. Finally, this course will address the challenges and benefits of diversity and offer practical tools for living and working together in a multicultural society. This course will also examine current legislation, literature, and case studies to reinforce critical thinking skills.

Prerequisite: None

Pre-Fall Hyde 2 Quarter Hours/Graded

PMO1011 QUANTITATIVE ANALYSIS & METHODS FOR HEALTH LEADERS AND EXECUTIVES I

This course is an introduction to applied statistics, data analysis, and research methodology for healthcare leaders and, as such, introduces students to concepts and techniques essential to the basics of statistical analysis. As part of this course, students will receive an introduction to probability, statistics, and decision analysis emphasizing the ways in which these tools are applied to practical healthcare administration and policy questions. Topics include: descriptive statistics, inferential statistics, basic probability, sampling design, and hypothesis testing.

Prerequisites: Concurrence of Course Director

Fall Richard 3 Quarter Hours/Graded

PMO1012 QUANTITATIVE ANALYSIS & METHODS FOR HEALTH LEADERS AND EXECUTIVES II

This course builds on your knowledge of applied statistics, data analysis, and research methodology for healthcare leaders. We will review concepts and techniques essential to the basics of statistical analysis and learn the intermediate concepts of predictive modeling, Analysis of Variance (ANOVA) and Regression. As part of this course, students will review an introduction to probability, statistics, and decision analysis emphasizing the ways in which these tools are applied to practical healthcare administration and policy questions. Topics include: descriptive

statistics, inferential statistics, basis probability, sampling design, hypothesis testing, predictive modeling, ANOVA, and Regression.

Prerequisites: Concurrence of Course Director

Winter | Richard | 3 Quarter Hours/Graded

PMO1015 MHAP RESIDENCY

The MHAP Residency is an approved administrative residency designed to develop practical experience in health administration, policy and leadership. The Residency Preceptors along with the MHAP Residency Director, will team to provide a customized residency experience that will meet not only the requirements for graduation but also the professional development needs of the individual resident. Detailed information about the residency can be found in the Administrative Residency Manual, which will be given to students prior to the start of the residency program.

Prerequisites: Completion of first year

All | Ellis | 12 Credit Hours Per Quarter/Graded

PMO1026 CURRENT ISSUES IN HEALTH CARE ADMINISTRATION AND POLICY

This course is intended to critically analyze and evaluate current issues in healthcare management and policy that are researched and published in the healthcare literature. Each student in the class will read a peer-reviewed journal article and come to class prepared to discuss the salient points and lead the class discussion. PMB faculty will attend the weekly seminar and join in on the discussion, as well as guide it when needed. The goal of the course is to support the attainment of core competencies for the Masters of Healthcare Administration and Policy degree, particularly in the demonstration of competency in critical analysis, but also to develop and demonstrate competency in communication, community-cultural orientation, professionalism, and ethics. Additionally, students will utilize the insight garnered from this course, and the current literature, to assist them with the preparation of their capstone project and ultimately develop a formal capstone proposal by the end of this course.

Prerequisites: None

Spring | Hawks/Haag | 2 Credit Hours Per Quarter/Graded

PMO1027 MANAGERIAL EPIDEMIOLOGY

An exploration of epidemiology principles as they relate to decision-making processes involved with the delivery and management of healthcare services and health policy. Focuses on issues involved with population and community health, including outreach and campaigning, evidence based practice, prevention, and comparative effectiveness. Both Review governance issues in healthcare organizations and explore the role of epidemiology as a foundational tool for management related decision-making processes. A case study intensive course. Expert epidemiologists and professionals from the field may be invited to provide insight on current trends and issues.

Prerequisites: None

Spring | Haag | 3 Quarter Hours/Graded

SOCIAL AND BEHAVIORAL SCIENCES (SOC/BEHAV)

PMO530 SOCIAL AND BEHAVIORAL SCIENCES APPLIED TO PUBLIC HEALTH

This course examines how the behavioral and social sciences can be used to: 1) understand human health-related behavior and 2) guide the application of behavioral theory to change behavior and prevent, reduce, or eliminate public health problems. The first part of the course focuses on behavior-oriented perspectives from the health promotion/education, psychology, and communication disciplines. The remainder of the course focuses on important social determinants of health with an emphasis on applying health behavior theory to primary and secondary disease prevention.

Prerequisites: None

Pre-Fall Girasek 4 Quarter Hours/Graded

PMO531 PROGRAM PLANNING AND DEVELOPMENT

This course is designed for students who are already familiar with health behavior theory and want to learn how to develop health behavior change programs. While a planning framework will be covered in lecture format, the acquisition of needs assessment skills is emphasized throughout the quarter. Program implementation and evaluation will also be covered, as will ethical issues relevant to health promotion.

Prerequisites: PMO530 or Course Director Concurrence

Winter Girasek 3 Quarter Hours/Graded

GLOBAL PUBLIC HEALTH (GPH)

Global Health Distance Learning Courses:

PMO 528 Global Health 1; PMO 539 Global Health 2; PMO 1022 Global Health Engagement; PMO 1025 Global Health and Development; PMO 1031 Global Health 3; PMO 1020 Comparative International Health System; 1023 Global Mental Health; PMO 1017 Health Context Analysis; PMO 534 Medical Anthropology; PMO 862 Independent Study in Global Health

For the description of the above courses and other upcoming distance learning courses, please see the Global Health Distance Learning Handbook: https://drive.google.com/file/d/13-MA65qQBiodBlSgFysAl5ZmkR2pCo-K/view?usp=sharing

PMO528 GLOBAL HEALTH I

This course provides a foundational understanding of global health and global health engagement. Officially titled “PMO 528” for USU’s in-residence students and “PMO 1018” for distance students, it is more affectionately and commonly referred to as “Global Health 1.”

As survey course that provides a broad introduction to the field of global health, “Global Health 1” begins by teaching the importance of viewing the field from the development perspective, and concludes by providing a detailed look at how the U.S. Department of Defense involves itself in this domain. Between those two bookends, topics ranging from maternal health to nutrition and infectious disease are covered in substantial breadth and depth.

This course uses a “flipped-classroom” method of teaching which involves recorded lectures and materials from which students learn on their own time, followed by weekly live seminar sessions. The seminar sessions are a critical piece of this course and participation in these class discussions is expected. Grading is by letter grade.

Prerequisites: None

Fall Boetig 4 Quarter Hours/Graded

PMO539 GLOBAL HEALTH II

PMO 539 (1019 for distance-learning students), more affectionately known as “Global Health 2,” is the second in the series of global health courses offered at the Uniformed Services University. It builds up on the material in the “Global Health 1” course by offering a deeper dive into some of the more complex topics within the field. “Global Health 1” introduced the subfield of maternal health by addressing the challenges related to maternal mortality, for example, and now the “GH2” course dives deeper by covering maternal health issues related to obstetric fistula, female genital mutilation, and abortion. While the “Global Health 1” course gives a broad overview of global health engagement, “Global Health 2” introduces the issue of corruption and other serious ethical challenges that often hamper program execution.

Like “Global Health 1,” this course uses a flipped-classroom method of teaching which involves recorded lectures and materials from which students learn on their own time, followed by weekly live seminar sessions. The seminar sessions are a critical piece of this course and participation in these class discussions is expected. Grading is by letter grade.

Prerequisites: PMO528 or Concurrence of Course Director

Winter Boetig 4 Quarter Hours/Graded

PMO548 JOINT HEALTH OPERATIONS

Joint Health Operations focuses on the Military Health Service mission within joint operations. This course seeks to give students a foundational understanding of the medical role in joint operations planned, prepared and executed by the military across the conflict continuum. The course further seeks to introduce the students to the terminology and the basic tenets of medical operations planning. Through this course the students will have a broader understanding of how global health engagements are nested within military engagements. The student will gain familiarity with the different types of global health engagements and be able to define and differentiate between the different GHEs. The course will discuss the importance of socio-cultural communication and review basic cultural competencies. Lastly, the students will have opportunities to practically apply the different GHEs concepts learned through table top and other exercises. This course is built on the instructional scaffolding methodology in that the curriculum will systematically build on the students’ experiences and knowledge as they are learning new skills.

Prerequisites: Concurrence of Course Director

Fall/Winter Paul-Kagiri/Fike/Bostrom 5 Quarter Hours/Graded

PMO560 PRINCIPLES AND PRACTICE OF TROPICAL MEDICINE

This course presents a comprehensive approach to the principles and practice of tropical medicine. Tropical illness will be presented from both a pathogen and organ system perspective (i.e., cardiac, neurological, dermatological). The epidemiology, pathogenesis, clinical manifestations, complications, differential diagnoses, diagnostic features,

and treatment of each disease will be presented. Methods for the prevention and control of these diseases are emphasized. Rational approaches to patients with various symptom complexes are discussed. Students are strongly encouraged to enroll concurrently in PMO 614 Tropical Medicine Rounds. Graded; or Pass/Fail in limited circumstances with instructor permission.

Prerequisites: PMO600 Fundamentals of Human Physiology (For non-clinicians only) or Concurrence of Course Director

Spring Garges 6 Quarter Hours/Graded

PMO561 MEDICAL PARASITOLOGY

This course consists of lectures, practical exercises, and demonstrations covering the important helminthic and protozoan diseases of man. The life cycle, epidemiology, geographic distribution, pathology and immunology together with laboratory and field methods of diagnosis, treatment, and prevention are covered.

Prerequisites: Concurrence of Course Director

Spring Stewart 3 Quarter Hours/Graded

PMO563 CLINICAL TROPICAL MEDICINE

This course serves as the Masters in Tropical Medicine & Hygiene practicum rotation (in place of PMO 670 MPH Practicum) and, with faculty permission, may also be taken as an elective course by other students. The primary focus of this course will involve an OCONUS rotation, although some students, with approval from the course directors, may complete the program at appropriate U.S. based sites that support tropical medicine oriented clinical care, research, and/or public health surveillance activities may also be utilized. Travel is contingent upon available funding. The minimum requirement to satisfy the Masters of Tropical Medicine & Hygiene practicum is three credit hours.

Prerequisites: Concurrence of Course Director

All (Overseas) Garges 1-12 Quarter Hours/Credit

PMO564A EPIDEMIOLOGY AND CONTROL OF ARBOVIRUSES

This course covers the epidemiology, prevention and control of viruses that are biologically transmitted by arthropods such as mosquitoes and ticks. In addition, some of the important African and South American hemorrhagic fever viruses and the Hantaviruses are covered. At the end of the course, students should have an extensive understanding of how these viruses may cause outbreaks of human disease in urban and/or rural environments, how to assess risk of exposure to these viruses, and how to prevent and/or treat these viral diseases. Lectures and discussions will cover topics such as arthropod infection and transmission of viruses, the epidemiology of various viruses carried by arthropods and rodents, clinical course and pathology of certain viral diseases, risk assessment of arthropod-borne virus transmission, prevention/control of arthropod-borne virus transmission, and development of new antiviral drugs. Students taking the laboratory will receive extensive training in the latest techniques for isolating, diagnosing, and cultivating certain viruses. All students will have a wide variety of current scientific articles to read and discuss. Graded; or Pass/Fail in limited circumstances with instructor permission.

Prerequisites: Concurrence of Course Director

Spring Wanja/Ortigao/Dunford 2 Quarter Hours/Graded

PMO564B LABORATORY TECHNIQUES IN ARBOVIROLOGY

This course is focused on the student gaining practical experience in laboratory techniques used in arthropod-borne virus research. Students will receive extensive training in state-of-the-art techniques for isolating, cultivating and identifying certain arboviruses. Students will have a wide variety of current scientific articles to read and discuss the methodology used.

Prerequisites: PMO564A and Concurrence of Course Director

Summer | Dunford/Wanja/Ortigao | 4 Quarter Hours/Graded

PMO565 VECTOR BIOLOGY

This course presents an overview of vector biology as it relates to the epidemiological patterns of arthropod-borne diseases in human populations. Vector species of major arthropod-borne diseases will be selected to illustrate different types of disease transmission and to examine vector potential as influenced by climate and habitat, susceptibility to infection, vector longevity, length of extrinsic incubation, host preferences and the relationships between vector behavior, socio-cultural characteristics of human populations, and disease incidence. The influence of vector biology on the methods and success of control efforts will be emphasized. The course will be presented in a series of lectures, discussions and class projects.

Prerequisites: Concurrence of Course Director

Fall | Wanja/Ortigao/Dunford/English | 2 Quarter Hours/Graded

PMO566 VECTOR PHYSIOLOGY

This course presents essential aspects of arthropod physiology and basic physiological principles that regulate competence for transmission of disease agents. Lectures and discussions will cover subjects such as growth and metamorphosis of vectors, movement of the various life stages of vectors, sensory functions of vectors which aid in host location and feeding, digestion of blood in mosquitoes, and adaptation of different vectors to climatic stresses. Laboratories will demonstrate various physiological phenomena such as the effects of hormones on growth and development of mosquitoes, ovarian development in mosquitoes, feeding stimuli for flies, effects of repellents on mosquito feeding, and effects of insecticides on mosquito locomotion.

Prerequisites: Concurrence of Course Director

Winter | Wanja/Ortigao/Dunford | 4 Quarter Hours/Graded

PMO567 MEDICAL ENTOMOLOGY

This course provides students with an overview of the current status of arthropod-borne diseases in the world today. Lectures and discussions will cover the biology and ecology of major groups of arthropod vectors, epidemiology of vector-borne diseases, arthropod-borne disease surveillance techniques and control measures. Laboratory sessions will acquaint students with the basic techniques used in medical entomology, including field collection methods, specimen preparation, preservation and storage, use of taxonomic resources for specimen identification and implementation of simple surveillance and control measures to reduce disease transmission.

Prerequisites: Concurrence of Course Director

Fall | Wanja/Ortigao/Dunford | 4 Quarter Hours/Graded

PMO568 MEDICAL ACAROLOGY

This is a survey course designed to familiarize students with the major groupings of medically important mites, ticks, spiders and scorpions. Lectures will be presented on morphology, classification, behavior, ecology and control of the major groups of acarines, spiders and scorpions. Emphasis will be placed on those families of greatest medical importance. Procedures for collecting, preserving, clearing, mounting and identifying specimens will be covered in the laboratory sessions. Students will be required to complete a class project.

Prerequisites: PMO567, Concurrence of Course Director

Upon request TBD 4 Quarter Hours/Graded

PMO569 MALARIA EPIDEMIOLOGY AND CONTROL

This course covers the epidemiology, prevention and control of malaria parasites that are biologically transmitted by anopheline mosquitoes. At the end of the course, students should have an extensive understanding of how malaria parasites may cause outbreaks of human disease in urban and/or rural environments, how to assess risk of exposure to these parasites, and how to prevent and/or treat malaria. Lectures and discussions will cover such topics as the history of

malaria, the biology of the anopheline vectors and of the malaria parasite, the clinical course and pathology of malaria, current chemotherapy and chemoprophylactic regimens for malaria, immunological aspects of malaria and the prospect of vaccines against malaria, the epidemiology of malaria, and the strategies for the prevention and control of malaria. In the laboratory, the student will learn how to identify malaria parasites and vectors, to diagnose human malaria using various techniques, to grow the malaria parasites and vectors in the laboratory, to conduct malaria surveys, and to control the anopheline vectors. Graded; or Pass/Fail in limited circumstances with instructor permission.

Prerequisites: Concurrence of Course Director

Spring Stewart 3 Quarter Hours/Graded

PMO570 LABORATORY METHODS APPLIED TO VECTOR BIOLOGY

This course provides an in-depth look at vector-host-parasite-reservoir relationships and the modern techniques utilized to study the causes of outbreaks of arthropod-borne human diseases. The lectures and discussions will focus on the factors that lead to the successful transmission of human pathogens by particular arthropod species under various ecological conditions. Laboratories will focus on utilizing the latest research techniques to examine various aspects of vector biology and disease transmission ecology. Students will have the opportunity to read and discuss a wide variety of current, cutting-edge scientific articles.

Prerequisites: Graduate-level medical entomology course Concurrence of Course Director

Summer Wanja/Ortigao/Dunford/English 4 Quarter Hours/Graded

PMO571 BIOSYSTEMATICS OF DISEASE VECTORS

This course will be presented in the form of lectures, discussion, demonstrations, and individual projects. The first half of the course will consist of lectures on the history and importance of systematics, the International Code of Zoological Nomenclature, the concept of species, sources of variation, population genetics and mimicry. The second half of the course will examine the major systems of biological classification and how behavioral, physiological, biochemical, and molecular techniques are applied in classifying medically important taxa.

Prerequisites: Concurrence of Course Director

Winter Dunford/Wanja/Ortigao 2 Quarter Hours/Graded

PMO577 INTRODUCTION TO GIS IN PUBLIC HEALTH

Geographic Information Systems (GIS) have a variety of uses including: mapping and analyzing the spatial distribution of diseases, determining the proximity of diseases to environmental factors, and planning the distribution of public health services. The goal of the course is to give students an understanding of the capabilities of GIS and exposure to spatial analysis techniques, example applications, and hands-on experience in the lab using hardware and software that will enable students to understand the range of spatial information techniques in a knowledgeable way to be able to include spatial analysis and/or mapping in their research and future work in public health. The lectures will cover GIS data structures, entering data into a GIS, geographic analysis, cartographic presentation, and applications of GIS to public health.

Prerequisites: Concurrence of Course Director

Fall English 2 Quarter Hours/Graded

PMO578 REMOTE SENSING METHODS IN PUBLIC HEALTH

Data acquired from aircraft, data stations, online databases and satellites have an increasing role in public health research as a way to map environmental factors that can affect health (such as mosquito larval habitats, water pollution, dust storms, etc.). The lectures will cover types of remotely accessed data examples of applications common to public health from the literature, and its use in GIS.

Prerequisites: Concurrence of Course Director

All (upon request) English 3 Quarter Hours/Graded

PMO610 GENERAL ENTOMOLOGY

This course provides general instruction in entomology in preparation for advanced study in disciplines associated with medical zoology. This is a course for those graduate students without prior training or experience in entomology. This course provides the basic fundamentals in arthropod systems that will facilitate a rapid educational transition to higher level graduate courses and laboratory study. The course will primarily consist of lectures, demonstration, and practical field based exercise.

Prerequisites: Concurrence of Course Director

Summer Wanja/Dunford/Ortigao 2 Quarter Hours/Graded

PMO613 PUBLIC HEALTH ISSUES OF DISASTERS IN DEVELOPING COUNTRIES

This course focuses on the public health consequences of disasters in developing countries (natural, man-made and technological) and on the principal public health interventions needed to mitigate and respond to the disaster's effects. Students will learn epidemiological tools to assess and monitor the health of populations affected by disasters. The role of the medical community when planning for and/or supporting the response to complex humanitarian crises will be emphasized. The course will use guest speakers to support the course material.

Prerequisites: Concurrence of Course Director

Spring Bostrom 4 Quarter Hours/Graded

PMO614 TROPICAL MEDICINE ROUNDS

This is a clinical case management course, geared toward the diagnosis and treatment of actual clinical cases. X-rays, basic laboratory specimens and photographs will be available for consideration. Discussion will include differential diagnosis, specific treatment, complications, epidemiological implications and preventive measures that could have avoided disease. Upon completion of this course the students should be able to (1) develop a tropical medicine disease case management strategy that is logical, realistic and comprehensive; (2) discuss the differential diagnosis of a patient symptom complex and recommend diagnostic and therapeutic actions; (3) know the chemotherapeutic treatment and case management strategy for common tropical diseases; and (4) devise a public health program to prevent further disease transmission in the community. This course is strongly recommended for anyone enrolled in PMO560 Principles and Practice of Tropical Medicine.

Prerequisites: Concurrence of Course Director

Spring Garges 2 Quarter Hours/Credit

PMO615 SAND FLIES AND DISEASE

This course presents a thorough coverage of the phlebotomine sand flies and their importance as vectors of diseases such as the leishmaniases, bartonellosis and sand fly fever. Particular emphasis is given to the leishmaniases and the ecology of Leishmania transmission, including Parasite vector and vector host interactions, sand fly and Leishmania surveillance and leishmaniasis prevention and control. The course also covers in less detail the biting midges (also called sand flies) and the diseases they transmit, such as blue tongue and Oropouche viruses, and certain microfilariae. Students will gain an extensive understanding of sand fly and biting midge biology and ecology, and will be able to recognize sand flies and biting midges by sight and identify important vector species using dichotomous keys. They will learn to organize and conduct sand fly and Leishmania surveys to assess the risk of human exposure, and will be able to recommend appropriate countermeasures for vector and disease suppression. Students will be required to rear sand flies in the laboratory and to collect age-specific life-table data through an entire colony generation.

Prerequisites: Concurrence of Course Director

Winter Ortigao 3 Quarter Hours/Graded

PMO760 TROPICAL MEDICINE RESEARCH TUTORIAL

Students, with faculty advice, will develop a study question for a directed research project during the overseas quarter. Background research of the medical/scientific literature will be required to formulate a hypothesis to be investigated. Laboratory procedures necessary for the study, but with which the student is unfamiliar, will be identified. This tutorial will include learning these techniques. There will be requirements for outside reading to understand the theory, as well as laboratory hands-on instruction to master the mechanics of the procedure(s) required to do the research project.

Prerequisites: PMO560, Concurrence of Course Director

All Garges 1-12 Quarter Hours/Graded

PMO763 TUTORIAL IN VECTOR BIOLOGY & PARASITOLOGY

The faculty will prescribe a literature review to cover a broad background in medical parasitology and vector biology. The students will meet with the faculty member for discussion of the material.

Prerequisites: Concurrence of Course Director

All Wanja/Ortigao/Dunford/English 1-12 Quarter Hours/Credit

PMO764 TUTORIAL IN AQUATIC BIOLOGY

This course is designed to familiarize the student with the major groupings of aquatic arthropods, which serve as useful indicators of environmental pollution. Lectures will be presented on morphology, classification, behavior and ecology of the major groups. Procedures for collecting, preserving, mounting and identifying the different groups of aquatic arthropods will be covered in the laboratory sessions. Students will be required to develop and turn in an extensive collection, complete with field notes, of preserved and identified specimens of genera represented in the locale of Washington, DC.

Prerequisites: Concurrence of Course Director

All (as needed) Wanja/English 4 Quarter Hours/Graded

PMO810 INTEGRATED PEST & VECTOR MANAGEMENT

This course provides comprehensive instruction on the principles of integrated pest management. Although the topic is often restricted to insects and other arthropods, other animals of public health significance are included here. The course consists of lectures, discussions, and individual exercises. Integrated Pest & Vector Management introduces the scope of challenges in applying pest management tactics and focuses on major components for consideration in an integrated program.

Prerequisites: Concurrence of Course Director

Spring English/Dunford 2 Quarter Hours/Graded

PMO963 DIRECTED FIELD RESEARCH

The student may elect a mini-project under the supervision of a faculty member in a field study. The aim of this directed research is to provide practical field experience in epidemiological and clinical research. The graduate student will, with faculty review, design the study, conduct the experiments and data collection, do the appropriate analysis, including a literature review, and prepare an oral presentation and a written report.

Prerequisites: Concurrence of Course Director

All (Overseas) Staff 1-12 Quarter Hours/ Graded

PMO964 RESEARCH IN VECTOR BIOLOGY AND/OR PARASITOLOGY

Graduate students will conduct a project of original research under the supervision of a faculty member. The graduate student will, with faculty review, design the study, conduct the experiments and data collection, do the appropriate analysis, including a literature review, and prepare oral presentations and a written dissertation. Enrolled students must submit a study plan to the course instructor for approval at the beginning of the term. Credits are assigned commensurate with the complexity of the plan.

Prerequisites: Concurrence of Course Director

All Wanja/Ortigao/Dunford/English 1-15 Quarter Hours/Credit

PMO990 TRAVEL MEDICINE

This clinically-oriented lecture course will teach and demonstrate the principles of travel medicine from the perspective of the tourist and the military unit. The course will consist of lectures and practical exercises. Students will be introduced to multiple sources of travelers' health information, including travel medicine computer software, published sources, and the Centers for Disease Control and Prevention. Preventive medicine

will be emphasized, including the use of vaccines, personal protective measures, and malaria chemoprophylaxis. After-travel evaluation and care of ill travelers will be introduced.

Prerequisites: M.D., D.O., P.A., N.P., Concurrence of Course Director

Spring Garges 2 Quarter Hours/Credit

PMO991 ETHICS IN PUBLIC HEALTH

This course is based on the Ethics and Public Health model curriculum developed by HRSA and ASPH in 2003. The course serves to encourage well-informed critical discussions of ethical issues in the field of public health. The scientific considerations in public health policy and interventions sometimes cause political and ethical conflicts. Central to public health practice are questions of autonomy, individual rights, coercion, justice, community, and multicultural values. The population-based perspective of public health goals should be ethically reconciled with the preservation of human rights and protection of civil liberties. The goals that guide this course curriculum are: stimulating the moral imagination, recognizing ethical issues, developing analytical skills, eliciting a sense of moral obligation and responsibility, and coping with moral ambiguity. The course will enable students to recognize, analyze, criticize, and evaluate ethical issues in public health, and equip them with practical knowledge to construct arguments and make decisions in public health practice. **NOT OFFERED 2020-2021**

Prerequisites: None

Spring (not offered 2021) TBD 3 Quarter Hours/Credit

PMO992 TRAVEL CLINIC PRACTICUM

This course is an optional clinical practicum course for students who are taking or who have taken PMO 990 Travel Medicine. It demonstrates and teaches best practices in counseling pre-travel patients in a clinical setting. The Travel Clinics at the National Naval Medical Center and the Walter Reed Army Medical Center, and eventually at the Walter Reed National Military Medical Center, are used to teach the clinical requirements for preparing tourists and business travelers of all ages and health states to travel safely abroad. Students assist scheduled staff physicians in seeing patients in these clinics. A minimum of 6 patient appointments must be seen, with appropriate preparation and follow-up. The expected total time requirement is approximately 12 hours.

Prerequisites: M.D., D.O., P.A., N.P., Concurrence of Course Director

Spring/ Summer Garges 1 Quarter Hour/Credit

PMO1008 INDEPENDENT STUDY IN GIS

This course provides students the opportunity to develop skills in using geographic information systems. Students may choose to develop a research project using GIS or may complete a series of GIS tutorials or informal training modules. This class is open to both students with GIS experience and to students with no experience. With direction from the instructor, the student will propose and complete a course of work (tutorials) or a research project suitable to the student's current skill level and interests. A proposal must be submitted to the course director for approval and credits are assigned commensurate with the complexity of the project.

Prerequisites: None

All English 1-12 Quarter Hours/Graded

PMO1009 DOMESTIC DISASTER MANAGEMENT AND RESPONSE

This course will provide an overview of the National Response Framework and how the US Government responds to domestic disasters. The course will review the phases of disaster response and the roles and responsibilities of local, state, and federal agencies. Federal guest lecturers will be invited to provide overviews of their Department's role in disaster response. The goal of the course is for students to understand the factors that will enable them as medical and public health leaders and responders to comprehensively assess these crises and effectively participate in their management and response.

Prerequisites: Concurrence of Course Director/Recommended: PMO 548

Winter | Strauss-Riggs | 3 Quarter Hours/Graded

PMO1013 MOLECULAR PARASITOLOGY

The proposed class would meet the need for a graduate-level course in the science of parasitology, with considerably reduced emphasis on the parasites of humans except as they particularly relate to a topic in cutting-edge science of parasitology. Thus in addition to covering examples of diseases created by the taxonomic spectrum of parasites, there would be emphasis on scientific themes, including such topics as immunology at the host-parasite interface, the molecular biology behind *var* gene complexes, how worms can alter host responses to suit their own survival, parasites as initiators of malignant transformation and parasite ecology.

Prerequisites: None

Spring | Davies | 3 Quarter Hours/Graded

PMO1017 HEALTH CONTEXT ANALYSIS

Students will explore the elements that determine the health context of a given locality in order to optimize health interventions and DoD global health engagement. This course uses a seminar format with background readings, prepared presentations, invited speakers, and group discussion. Students will use a Health Context Analysis Framework to prepare a detailed analysis of a selected country as an ongoing project and for final presentation.

Prerequisites: None

Spring | Shinwari | 3 Quarter Hours/Graded

PMO1020 GLOBAL HEALTH SYSTEMS DISTANCE LEARNING

Students will use Roemer's Model of Health Systems to examine resource allocation, management, and health outcomes in the United States and around the globe. The course will focus on the structure and functioning of national health systems based on geographic location and governance in both developing and developed countries (democracies, monarchies, and communist nations). Resource allocation across the continuum of nations, and relationship to national health needs, health status, and longevity, are examined.

Prerequisites: Approval of Course Director

All | Koehlmoos | 3 Quarter Hours/Credit

PMO1023 GLOBAL MENTAL HEALTH

This course on global mental health will cover topics ranging from the principles of design of mental health interventions in low and middle-income countries and how to scale them up, to research priorities for global mental health in LMICs. Various adult-learning techniques will be used including recorded presentations, class discussions, expert panels, and Sakai discussion groups.

Prerequisites: Global Health 1 & Global Health 2 or with concurrence of course director

Fall Baines 3 Quarter Hours/Credit

PMO1025 GLOBAL HEALTH AND DEVELOPMENT - DL Version

PMO 1025, “Global Health and Development,” (GHD) teaches the art, history, and science of development with application to global health. “Global Health 1 and 2,” (GH1 and GH2), are prerequisite courses for GHD. In GH1 and GH2 students learn the scope and depth of the challenges in global health; the critical analysis in those courses is so extensive that some students leave feeling a sense of overwhelming hopelessness. “Global Health and Development” introduces these students to a whole new way to consider these challenges that otherwise might seem overwhelming: through the lens of development. Development is the art, science, and practice of helping countries and regions transition from subsistence living to modern, flourishing states, with concurrent advancement in sectors ranging from education to governance, energy and transportation, but also human rights and, especially, health.

This course forces students to take a big step back and examine global health from the broader vantage point of a development specialist. It begins by introducing theories of development economics which are required before one can figure out how to do global health “the right way.” In this course students will study in detail many of the most spectacular attempts at development since the dawn of the industrial age. Students will harvest what can be learned from successful interventions, as well as learn from what went wrong in some of the most spectacular failures. Upon completion of the course students will be far better informed and educated about the history, challenges and theories of this field, and they will be able to carry this in-depth understanding of global health and development to better design, plan and lead global health engagements.

This is a four-credit course that requires the reading of four books, completion of three term papers, and mandatory seminar sessions. This course uses a flipped-classroom method of teaching which involves recorded lectures and materials from which students learn on their own time which precede the weekly live seminar sessions. The seminar sessions are a critical piece of this course and participation in these class discussions is expected. Grading is by letter grade.

Prerequisites: Global Health 1 & Global Health 2 or with concurrence of course director

Fall Boetig/Kayembe 4 Quarter Hours/Credit

PMO1031 GLOBAL HEALTH III

PMO 1031 or “Global Health 3” (GH3) begins with an overview of counterinsurgency theory and strategy, with particular emphasis on the role that health plays in the overall effort. It then transitions to a deep study of U.S. and coalition health efforts during the Vietnam War, the United States' most traumatic counterinsurgency effort since the Civil War. The study of this topic is greatly assisted by Dr. Robert Wilensky, author of Military Medicine to Win Hearts and Minds: Aid to Civilians in the Vietnam War, along with an entire team of additional subject matter experts.

The "military" or global health engagement theme of this course is capped by presentations of current operations in the AFRICOM area of responsibility, and rounded out with input from our military faculty partners from the United Kingdom who present on their efforts in this domain. Additional topics include the military's efforts with laboratory medicine in developing countries as well as an introduction to the medical rules of engagement in counterinsurgency operations and related ethical dilemmas.

A few topics not directly related to military operations include a deep study of Golden Rice, as well as entomophagy and oral global health. These are included in this capstone course as they nicely tie together various concepts and themes from prior courses.

Like GH1 and GH2, this course uses a flipped-classroom method of teaching which involves recorded lectures and materials from which students learn on their own time, followed by weekly live seminar sessions. The seminar sessions are a critical piece of this course and participation in these class discussions is expected. Grading is by letter grade.

Prerequisites: PMO528 Global Health 1 & PMO539 Global Health 2 or concurrence of course director

Winter | Boetig | 4 Quarter Hours/Credit

PMO1032 PRACTICAL MONITORING AND EVALUATION

Per DODI 5132.14 (Assessment, Monitoring, and Evaluation Policy for the Security Cooperation Enterprise) AM&E is required for all significant security cooperation initiatives and will be consistent with U.S. Government and international standards and best practices. This course will be a multimedia course with a “hands on” approach to aid in the understanding of the practices creating monitoring and evaluation plans. Students will work together to create logical frameworks and develop M&E plans for projects currently advertised by USAID. The course uses a "flipped classroom" approach, and substantial research and reading is required outside of class. Enrollment is limited to 12 students.

Prerequisites: PMO528 Global Health 1 & PMO539 Global Health 2 and concurrence of Dr. Boetig and/or Dr. Lieberman Lawry

Spring | Lieberman Lawry | 3 Quarter Hours/Graded

DEPARTMENTAL COURSES (DEPT)

PMO542 CLINICAL OCCUPATIONAL AND ENVIRONMENTAL MEDICINE

This course is designed to facilitate the transition of OEM residents from the classroom setting into clinical rotations in occupational health clinics. This two-week, seven-day course emphasizes clinical skills needed in OEM practice, and the application of knowledge of public health topics in a clinical setting.

Prerequisites: OEM Resident, or Concurrence of Course Director

Spring | Krahl/Ortiz | 3 Quarter Hours/Graded

PMO558 FUNDAMENTALS OF CLINICAL OCCUPATIONAL ENVIRONMENTAL AND PREVENTIVE MEDICINE

This course is an introduction to the National Capital Consortium Residencies in Occupational and Environmental Medicine (OEM) and General Preventive Medicine (GPM) for academic-year OEM and GPM residents. It provides an introduction, through lectures and group class activities, to concepts and administrative procedures germane to the residency program. Resident competencies will be discussed, and each resident will prepare and present an individual learning plan. The class is also relevant and open to residents who are in the academic year of other service-related GPM or Aerospace Medicine Residency or fellowship programs.

Prerequisites: Status as a resident in an ABPM specialty

Pre-Fall | Costello/Krahl | 1 Quarter Hour/Graded

PMO608 DOCTORAL SEMINAR

This course is designed to prepare students in the Public Health PhD program for the written and oral qualifying examinations. Students are expected to attend for three quarters beginning in Spring of their first year. The Spring quarter will focus on preparing for the written examination. Students will prepare and discuss case studies in public health to practice integrating information from core courses to address real-world public health problems. Subsequent quarters will focus on preparing for the oral examination and dissertation research process, including developing a specific, measureable, attainable, realistic and timely research question and a draft research proposal.

Fall/Winter/ Spring | Koehlmoos | 1 Quarter Hour/Credit

PMO642 CLINICAL PREVENTIVE SERVICES AND SELECTED TOPICS IN OCCUPATIONAL HEALTH

This course is designed primarily for residents in occupational and environmental medicine and for residents in general preventive medicine and provides an introduction to the scope of occupational and environmental health in the United States, the practice of occupational health, the implementation of some key clinical preventive medicine services, administrative and legal aspects of occupational health, and general concepts of toxicology and medical surveillance/medical qualification exams.

Prerequisites: Concurrence of Course Director

Pre-Fall | Ortiz/Krahl | 3 Quarter Hours/Graded

PMO655 CURRENT ISSUES IN SAFETY AND INJURY PREVENTION (Seminar)

The purpose of this course is to introduce fundamental concepts in injury research and prevention. Injuries associated with transportation, violence, and the home and occupational environments are included. An emphasis will be placed on practice-based learning and improvement and systems-based practice within the field of safety and injury prevention, with specific focus on implementation these principles by the Department of Defense. The class format will consist of lectures, group discussions and case studies, in-class exercises, and student presentations.

Prerequisite: Concurrence of Course Director

Winter | Krahl | 1 Quarter Hour/Graded

PMO661 CURRENT TOPICS IN PREVENTIVE MEDICINE AND BIOSTATISTICS

This seminar series presents reviews of current concepts and research in tropical public health. Guest speakers and faculty members present weekly seminars on selected topics.

Prerequisites: Concurrence of Course Director

Fall/Winter/ Spring | Garges | 1 Quarter Hours/Graded

PMO670 PUBLIC HEALTH PRACTICUM

Students will have the opportunity for a variety of experiential training in public health within military and civilian organizations in the local geographic area and possibly other more distant sites. Students will enhance their didactic learning experience by practical application, and they will acquire a broad public health perspective to specific health-related problem solving. Students will receive a total of 3 pass/ fail credits for the practicum experience, which may be spread over more than one quarter.

Prerequisites: PMO503, 511,526,530,540

All | Singer | 1-6 Quarter Hours/Credit

PMO671 INTRODUCTION TO THE MPH PROJECT AND PRACTICUM

This seminar course is designed to introduce students to the process of designing, developing, executing, and presenting the results of their independent projects and practicum activities. Guest speakers from various military and civilian organizations offer potential project and practicum opportunities in class or at practicum and independent project fairs. Goal setting, time lines, and curriculum planning for successful completion of the MPH program will be integrated into the course. By the end of the course, students will be able to describe the criteria for an appropriate independent project and practicum experience, demonstrate familiarity with University and Federal regulations pertaining to research, articulate possible project or practicum activities aligned with their personal and professional goals, and formulate a focused research question.

Prerequisites: Concurrence of Course Director

Fall | Singer | 1 Quarter Hour/Credit

PMO672 MPH PROJECT/PRACTICUM DESIGN AND DEVELOPMENT

Building on the introductory course in this series, students will receive guidance on developing a pre-proposal and final proposal for their independent project. Protocol development workshops will offer students opportunities for feedback from classmates as well as faculty members. Guest speakers will present overviews on survey development and qualitative research, appropriate content for the analysis section of a protocol, and the IRB approval process for human subject's research. Students will be encouraged to select a project which combines the project and practicum requirements, if possible. By the end of the course, students will develop a study plan to address their research question and demonstrate compliance with the process of institutional review and approval for student research by submitting all required University forms and supporting documents prior to study implementation.

Prerequisites: Concurrence of Course Director

Winter | Singer | 1 Quarter Hour/Credit

PMO673 MPH PROJECT/PRACTICUM IMPLEMENTATION AND EVALUATION

This is the third and last in this seminar series on the MPH independent project and practicum. The course will include hands on data management and database construction sessions in the LRC and be a forum for discussing and finding solutions to issues or problems related to the IRB approval process, data collection, analysis plans, study implementation, funding issues, and authorship, among others. Instructors will reinforce the oral and

written communication skills essential for effective public health practice, including how to prepare scientific abstracts and posters as well as manuscripts for publication. By the end of the course, students will be able to prepare abstracts, posters, written reports and oral presentation slides related to public health practice or research. They will be able to effectively participate in the iterative process of producing a well-organized and clearly written report and demonstrate effective oral communication skills when reporting research findings.

Prerequisites: Concurrence of Course Director

Spring | Singer | 1 Quarter Hour/Credit

PMO674 MPH INDEPENDENT PROJECT

This is a required course for all MPH/MTM&H students in order to receive grades and credit for the products of their independent project: project proposal, oral presentation, and a final written report.

Prerequisites: Eligibility for graduation

Summer | Singer | 3 Quarter Hours/Graded

PMO675 DRPH PUBLIC HEALTH PRACTICUM

Enrolled students will have the opportunity for a variety of training experiences in public health within military and civilian organizations in the local geographic area and possibly more distant sites. Students will enhance their didactic learning with practical application and will acquire a broad public health perspective including experiences with advocacy, communication, community-oriented cultural orientation, critical analysis, leadership, management and/or professionalism and ethics. DrPH students will receive 6 credits for 240 hours and the completion of a final report and requisite evaluation forms documenting the practicum experience. The practicum may be spread over more than one quarter, but the total number of credit hours is not to exceed 6 over the duration of the degree program.

Prerequisites: Enrollment in the Doctor of Public Health Program

Fall/Winter/Spring | Staff/Olsen | 1-6 Quarter Hours/Credit

PMO676 MINDFULNESS BASED STRESS REDUCTION

This 12-week course combines didactic instruction on the influence of mindfulness on prevention therapy, wellness optimization, and biologic systems with an experiential 8 sessions (20 hours) Mindfulness Based Stress Reduction (MBSR) curriculum. **THIS COURSE WILL NOT BE OFFERED IN 2019/2020.**

Prerequisites: None

Spring | Scott | 2 Quarter Hours/Credit

PMO680 INTRODUCTION TO PUBLIC HEALTH

This course provides an overview of the field of public health, including the history of public health and preventive medicine, legal and ethical issues associated with public health, and current US public health priorities. Students will gain understanding of the structure of the US public health enterprise at the local, state, and federal levels. The objective is to provide an introduction to these topics as a foundation for the rest of the academic year.

Prerequisites: Concurrence of Course Director

Pre-Fall | Costello | 1 Quarter Hour/Credit

PMO682 HISTORY OF PREVENTIVE MEDICINE

The evolution and development of the medical and social aspects of public health and preventive medicine, and specialized disciplines (statistics, epidemiology) will be studied to explicate both the historical background of the present, and to extract the historical foundation for persistent concepts and functions. A seminar presentation is required for 2 credits, and a seminar presentation plus paper is required for 4 credits.

Prerequisites: Concurrence of Course Director

Spring Smith 2 or 4 Quarter Hours/Graded

PMO683 CRITICAL READING SEMINAR

The Critical Reading Seminar is part of the USU/WRAMC Fellowship Program in General Internal Medicine. It is designed to teach participants to read clinical literature critically, using epidemiologic and statistical techniques. The seminar in the Fall quarter is devoted to a study of the critical appraisal materials designed by the Department of Clinical Epidemiology and Biostatistics at McMaster University. Exercises are designed to provide a practical experience in employing McMaster's methodology to significant articles chosen to exemplify both excellent and problematic clinical investigation. Subsequently, participants choose their own critical reading packages. Each session is devoted to reading in depth about a single topic; all participants are provided with three to five articles to read critically prior to the seminar. During the seminar, participants rotate as facilitators; all participants discuss the chosen articles. The articles reviewed are primarily from the internal medicine literature and deal with major topics in preventive medicine, epidemiology, and utilization of diagnostic technology, causation, quality of care, economic analysis, prognosis, and therapy.

Prerequisites: Concurrence of Course Director

Fall/Winter/ Spring Douglas 2 Quarter Hours/Credit

PMO684 CLINICAL RESEARCH SEMINAR

The Clinical Research Seminar is part of the WRNMMC/USU Fellowship Program in General Internal Medicine. The seminars concentrate on how to design clinical investigation projects, with a particular emphasis on areas in academic general medicine, such as ambulatory care, geriatrics, medical interviewing, preoperative evaluation, clinical decision making, medical education, behavioral medicine, and health services research. Speakers emphasize methodologic issues and, in particular, explore problems associated with clinical research. About 1/3 of the seminars will be conducted by WRAMC or USU investigators; 1/3 will focus on special topics in clinical research; and 1/3 will be led by speakers invited from outside agencies and institutions. The format is informal to allow a brisk dialogue between participants and speakers. Students will see how principles of clinical research and implemented in actual projects, and will learn how to identify methodologic problems when designing protocols and reading the literature.

Prerequisites: Concurrence of Course Director

Spring Douglas 1 Quarter Hour/Credit

PMO688 INFORMATION GATHERING IN CLINICAL MEDICINE

Information gathered in the clinical setting becomes data used in epidemiological and health outcomes research. This course will provide opportunities for students to learn from research-oriented practicing clinicians in a clinical setting. Students will learn the problems involved in collecting accurate information from patients through history-taking, physical examination, laboratory testing, and questionnaire administration. Teaching methods will

center on observation of the physician at work and, as much as possible, active participation of the students in collecting data, and will include assigned readings and tutorials. **THIS CLASS WILL NOT BE OFFERED IN 2019/2020.**

Prerequisites: PMO511, 512, Concurrence of Course Director

All Staff 2-12 Quarter Hours/Credit

PMO691 TEACHING PRACTICUM

As one of the requirements of the DrPH. program, students serve as Teaching Assistants for at least one course per year. In addition to providing assistance to the course director, they are expected to expand and deepen their knowledge of the subject matter taught, sharpen their critical thinking skills, and gain experience in giving lectures, leading seminars, supervising laboratory exercises, preparing and grading examinations, reviewing homework, and counseling students.

Prerequisites: Concurrence of Course Director

All Staff 3 Quarter Hours/Credit

PMO811 INDEPENDENT STUDY IN PUBLIC HEALTH

The student will conduct an independent study project concerning a specific area of public health interest. This course is designed for students working independently to acquire specific skills or to deepen their understanding of the subject matter, or for doctoral students preparing their thesis proposal. Students work under the supervision of a faculty member. Enrolled students must submit a study plan to the course instructor for approval at the beginning of the term. Credits are assigned commensurate with the scope of the study plan.

Prerequisites: Concurrence of Division Director

All Staff 1-12 Quarter Hours/Credit

PMO900 INTRODUCTION TO CLINICAL TRIALS

Presents students with the rationale for conducting clinical studies and introduces basic clinical trial methodology. Fundamentals of design, conduct, and analysis will be presented through modern and historical examples. Key ethical and regulatory issues related to clinical trials will be highlighted, as will the unique role of the military in past and present examples of clinical research. The course is intended to provide a basis for understanding clinical trial design and analysis. Students interested in developing the skills necessary to independently design clinical trials, including the development of an analysis plan, are advised to enroll in PMO996 Clinical Trial Design and Analysis.

Prerequisites: PMO503 or Concurrence of Course Director

Winter Ottolini 2 Quarter Hours/Credit

PMO911 DIRECTED RESEARCH IN PUBLIC HEALTH

The course description should be as follows: The student will conduct independent research in a specific area of public health interest under the supervision of the academic advisor. The research project will typically be part of the student's master's or doctoral thesis. Enrolled students must submit a study plan to the course instructor for approval at the beginning of the term. Credits are assigned commensurate with the scope of the study plan.

Prerequisites: Concurrence of Course Director

All Staff 1-12 Quarter Hours/Credit

PMO970 DIRECTED STUDIES IN PREVENTIVE MEDICINE

Additionally, students may register for this course in order to receive credit for extra work on the MPH independent project. Selected students will use this independent study project to expand their knowledge in a specific area of Preventive Medicine or Public Health.

Prerequisites: Concurrence of Course Director

All Staff 1-12 Quarter Hours/Credit

PMO971 PMB DOCTORAL STUDENT JOURNAL CLUB

This course is required for all PMB doctoral students. Each student in the class will read the selected scientific article and come prepared to discuss the salient points. A different student each week will present a current scientific paper published in the peer-reviewed scientific literature and lead the discussion. PMB faculty will attend the weekly seminar and are encouraged to join in the discussion. The major objective of the course is to develop and refine critical reading skills, as well as presentation skills.

Prerequisites: Concurrence of Course Director

Fall/Winter/ Spring Staff 1 Quarter Hour/Credit

PMO973 OCCUPATIONAL & ENVIRONMENTAL MEDICINE (OEM) JOURNAL CLUB

The overall goals of the OEM Journal club are to teach problem-based learning to participants by identification of public health problems from “real-world” situations, reviewing the extant scientific literature and utilizing structured critical appraisal skills to determine the evidence-based recommendations that can be translated into policy and practice. The intent of the process is to instill in participants a habit of life-long learning to maintain current and valid knowledge relevant to preventive and occupational medicine. In addition, each student is expected to prepare, present and lead a critical appraisal discussion of an article one or more times during the academic year, as well as to read and participate in the weekly discussions of each article selected. Residency and graduate faculty and are encouraged to attend and contribute to all sessions. Faculty and invited guest speakers may also present “hot topics’ of interest at times during the year. Secondary goals are to share experiences and expertise, pass on announcements and events of interests, and foster a sense of collegiality and identity within the residency programs and the graduate students in affiliated residency programs.

Prerequisites: Concurrence of Course Director

Fall/Winter/ Spring Krahl/Ortiz 1 Quarter Hours/Credit

PMO974 GENERAL PREVENTIVE MEDICINE (GPM) JOURNAL CLUB

The overall goals of the GPM Journal club are to teach problem-based learning to participants by identification of public health problems from “real-world” situations, reviewing the extant scientific literature and utilizing structured critical appraisal skills to determine the evidence-based recommendations that can be translated into policy and practice. The intent of the process is to instill in participants a habit of life-long learning to maintain current and valid knowledge relevant to preventive and occupational medicine. In addition, each student is expected to prepare, present and lead a critical appraisal discussion of an article one or more times during the academic year, as well as to read and participate in the weekly discussions of each article selected. Residency and graduate faculty and are encouraged to attend and contribute to all sessions. Faculty and invited guest speakers may also present “hot topics’ of interest at times during the year. Secondary goals are to share experiences and

expertise, pass on announcements and events of interests, and foster a sense of collegiality and identity within the residency programs and the graduate students in affiliated residency programs.

Prerequisites: Concurrence of Course Director

Fall/Winter/ Spring | Costello/Reimann | 1 Quarter Hours/Credit

PMO996 CLINICAL TRIAL DESIGN & ANALYSIS

This course is designed for MPH and other graduate students / researchers interested in synthesizing their learning from previous coursework/experience in the design and analysis of clinical trials. The course is intended for students interested in developing the skills necessary for a more independent role in designing clinical trials, including ones that contribute to effective collaboration in developing a statistical analysis plan. The course will survey advanced topics in clinical trials, discussing issues commonly faced, from the prospective planning phases, through conducting and monitoring an ongoing study, to analyzing a completed study. Lectures will emphasize the conceptual aspects of design/analysis issues in this survey of topics, drawing on examples from the current literature. Each lecture is followed by a lab or a selection of breakout sessions, during which students engage in a topic of their choosing with in-depth coverage of issues and hands-on experience with analysis methods to handle them; pros and cons of various approaches and implementing methods using software will be emphasized.

Prerequisites: PMO900 or Concurrence of Course Director

Not offered 2029/2021 | Wilkins | 2 Quarter Hours/Credit

PMO1024 THE CONSTITUTION; PUBLIC HEALTH AND THE BODY POLITIC

Upon entering military service we undertake an oath to defend the Constitution but do we really know or fully understand what the Constitution is or means? Are we aware what civic, military, and medical duties are promoted and/or constrained by it? This course provides students an opportunity to learn the history behind, the structure and framework of the Constitution, its application today, and to specifically consider its significance and applicability to Public Health. Students taking this course will read source materials to understand the intellectual and historical roots, the writing of, and its application by the Framers and those who followed.

Prerequisites: None

Spring | Lipsitz | 1 Quarter Hour/Graded

FACULTY

Primary Appointments

Agan, Brian, M.D (University of Colorado Health Sciences Center, Denver, CO); Associate Professor (Infectious Disease Clinical Research Programs) and Director of HIV/STI Research

Ahmed, Anwar, Ph.D. (University of Richmond, Richmond, VA), Assistant Professor (Biostatistics Consulting Center)

Benchoff, Edward (Ted), Ph.D. (Uniformed Services University), M.S. (University of California, Los Angeles), Assistant Professor, Occupational and Environmental Health Science Division; CDR, MSC, USN

Boetig, Brad, M.D. (Uniformed Services University of the Health Sciences), M.P.H. (Uniformed Services University of the Health Sciences); Assistant Professor and Director Global Health Distance Learning Program; Lt Col, MC, USAF

Bostrom, Paul, MD (University of Pennsylvania, Philadelphia, PA), Assistant Professor (Tropical Public Health), LtCol MC USAF

Burgess, Timothy, M.D. (Indiana University School of Medicine, Indianapolis, IN), M.P.H. (Uniformed Services University of the Health Sciences, Bethesda, MD), Associate Professor and Director, Infectious Disease Clinical Research Program; CAPT, USN

Byrne, Celia, Ph.D. (University of California, Los Angeles), M.S. (University of California, Los Angeles); Associate Professor (Epidemiology & Biostatistics)

Chen, Dechang, Ph.D. (SUNY, Buffalo); Professor (Epidemiology & Biostatistics)

Coles, Christian, Ph.D. (Johns Hopkins University), MPH (Columbia University, School of Public Health), Associate Professor (Infectious Disease Clinical Research Program)

Condie, Karyn J, M.D. (Uniformed Services University of the Health Sciences), MPH (University of Florida Gainesville), PhD (Capella University); Assistant Professor (Tropical Public Health); Col, MC, USAF

Costello, Amy, MD, MPH (Uniformed Services University of the Health Sciences), Assistant Professor and Program Director General Preventive Medicine Residency; Col, MC, USAF.

Crawford, Raymond S., III, M.D. (University of Arkansas), M.B.A. (Troy State University); Assistant Professor (Health Services Administration)

Dunford, James C., PhD (University of Florida), MS (University of Wisconsin-Madison), BA (University of Wisconsin-Milwaukee), Assistant Professor, LCDR, MSC, USN

English, James J. PhD (University of Arkansas); Assistant Professor (Tropical Public Health)

Garges, Eric, M.D. (Boston University), MPH (Boston University), MPM&H (Uniformed Services University), Associate Professor and Director of the Division of Tropical Public Health, LTC, MC, USA

Girasek, Deborah, C., M.P.H. (University of Michigan School of Public Health), Ph.D. (Johns Hopkins University School of Hygiene and Public Health); Professor and Director of Social and Behavioral Sciences Division

Haag, Austin, Ph.D. (Texas A&M), MHA, MEcon, Assistant Professor, LT, MSC, USN

Haverkos, Harry, M.D. (Medical College of Ohio at Toledo); Associate Professor; CAPT (Ret), USPHS

Hawks, Beth, Ph.D. (American University), MHA (University of Scranton), Assistant Professor, MHAP Director (Health Services Administration); LCDR, MSC, USN

Kao, Tzu-Cheg, M.S. (National Tsing Hua University, Taiwan), Ph.D. (Purdue University); Professor (Biostatistics)

Koehlmoos, Tracey, PhD. (University of South Florida), Associate Professor

Krahl, Pamela, M.D. (Emory University), MPH (Uniformed Services University), Assistant Professor, Director (Occupational Medicine Residency); CAPT, MC, USN

Lalani, Tahaniyat, M.D. (Duke University School of Medicine), Assistant Professor (Infectious Disease Clinical Research Program)

Lipsitz, Robert, M.D., (Wayne State University School of Medicine), MPH (Uniformed Services University), Chief of Direct Patient Care (DPC) for Preventive Medicine; CAPT, MC, USN

Majar, Maria, M.S. (University of Washington); Assistant Professor, Occupational and Environmental Health Sciences

Mancuso, James, M.D. (Uniformed Services University), M.P.H. (Johns Hopkins University), DrPH. (Uniformed Services University), Chair and Professor, LTC, MC, USA

Millar, Eugene, Ph.D. (Johns Hopkins University); Assistant Professor and Deputy Director General Infectious Diseases Program (IDCRP)

Neih, Chiping, Ph.D. (University of Illinois at Chicago), Assistant Professor, Epidemiologist, Graduate Programs

Olsen, Cara H., M.S. (Cornell University), DrPH. (Uniformed Service University of the Health Sciences); Associate Professor and Graduate Program Director

Ortiz, Jose, M.D. (Uniformed Services University), M.P.H. (Uniformed Services University), Assistant Professor, Associate Director (Occupational and Environmental Medicine Residency Program); COL, MC, USA

Paul-Kagiri, Rachelle, M.D. (Medical University of South Carolina in Charleston) Assistant Professor (Tropical Public Health), Col, USAF

Ramalho-Ortigao, Marcelo, D.Sc. (Oswaldo Cruz Institute), Associate Professor, (Tropical Public Health)

Reimann, Carolyn, MD, Assistant PD for General Preventive Medicine Residency

Richard, Patrick, Ph.D. (Johns Hopkins University); Associate Professor & Interim Director (Health Services Administration)

Rockabrand, David, PhD. (University of Nebraska-Lincoln), Assistant Professor (Tropical Public Health); LCDR, USN

Rusiecki, Jennifer A., Ph.D. (Yale University, School of Medicine), M.P.H. (Yale University, School of Medicine); Associate Professor (Epidemiology and Biostatistics)

Scher, Ann I, Ph.D. (Johns Hopkins University School of Hygiene and Public Health), M.S. (University of Maryland); Professor and Director of Division of Epidemiology and Biostatistics

Sharp, Jon, DrPH(c) (George Washington University), MPH (University of Illinois at Springfield); Assistant Professor; Occupational and Environmental Health Sciences, MAJ, USA

Singer, Darrell, MD (Uniformed Services University), MPH (Johns Hopkins School of Hygiene and Public Health); Associate Professor (Graduate Programs), CAPT, USPHS

Stewart, Ann, D.V.M. (Cornell University), Ph.D. (Colorado State University); Professor (Tropical Public Health)

Stubner, Alex, Ph.D. (Tulane University), MSPH, (University of Alabama at Birmingham), Assistant Professor, Occupational and Environmental Health Sciences

Tribble, David, M.D. (University of Arkansas), M.P.H. (Uniformed Services University of the Health Sciences), DrPH. (Uniformed Services University of the Health Sciences); Professor and Director of General Infectious Diseases Program (IDCRP)

Wanja, Elizabeth W. PhD (University of Guelph, Ontario), Assistant Professor (Tropical Public Health), MAJ, USA

Whitaker, William, M.S. (Eastern Kentucky University); Assistant Professor, Division Director Occupational and Environmental Health Sciences, LTC, USA

Wilcox, Sherrie, Ph.D., CHES, (University of Georgia), Assistant Professor, Division of Social and Behavioral Sciences

Young, John, DProf (Syracuse University), Assistant Professor and Vice Chair for Administration

Secondary/Adjunct Appointments

Joseph H. Abraham, Sc.D., M.S.
Lieutenant Commander Nehkonti Adams, MC, USN
Terry A. Adirim, M.D., M.P.H.
Major Kimberly D. Alston, MSC, USA
Captain Juliann M. Althoff, MC, USN
Richard G. Andre, Ph.D.
Naomi E. Aronson, M.D.
Commander Anthony R. Artino, Jr., MSC, USN
Major Hayley R. Ashbaugh, VC, USA
Ricardo Aviles, M.D.
Lyndsay Baines, Ph.D.
Lieutenant Commander Sarah-Blythe Ballard, MC, USN
Galen L. Barbour, M.D.
A. Paul Barker, M.D.
Colonel John P. Barrett. MC, USA
Charles W. Beadling, M.D.
Lieutenant Colonel Michael R. Bell, MC, USA
William F. Blakely, Ph.D.
David L. Blazes, MD, MPH
Commander Gordon Blighton, USN
Commander Jason B. Blitz, MC, USN
Rear Admiral Paul Jeffrey Brady, USPHS
David Brett-Major, M.D.
Colonel Mary T. Brueggemeyer, USAF, MC
Commander Han Q. Bui, MC, USN
Colonel Edwin K. Burkett, USAF, MC
Colonel Daniel G. Burnett, USAF, MC
Captain Joyce A. Cantrell, MC, USN
Chien-Chung Chao, Ph.D.
Wei-Ju Chen, Ph.D
Captain Andy Chern, MC, USA
Wei-Mei Ching, Ph.D.
Lieutenant Commander Shawn Clausen, MC, USN
Bruce A. Cohen, M.D.
Captain Sylvie I. Cohen, USPHS
Colonel Rodney L. Coldren, MC, USA
Rhonda Colombo, M.D., M.H.S.
Captain Philip E. Coyne, Jr., USPHS
Alisha H. Creel, Ph.D.
David F. Cruess, Ph.D.
Stephen J. Davies, Ph.D.
Robert F. DeFraites, M.D., M.P.H.
Robert Deiss, M.D.
Scott D. Deitchman, M.D., M.P.H.
Zygmunt F. Dembek, Ph.D.
Juan C. Diaz, M.D.
Captain Glendon Diehl, MSC, USN
Lieutenant Commander Erich Dietrich, MC, USN
Commander Tai A. Do, MC, USN
Commander Illy Dominitz, MC, USN
Major Michael J. D'Onofrio, MC, USA
Lieutenant Commander Patrick J. Dougherty, MC, USN
Lieutenant Colonel John W. Downs, MC, USA
Colonel Tim D. Duffy, USAF, MC
David A. Eliason, M.D.
Lieutenant Colonel Michael W. Ellis, MC, USA
Lieutenant Colonel Elizabeth A. Erickson, USAF, MC
Allahna Esber, Ph.D.
Christina M. Farris, Ph.D.
Robert Ferris, DO, MPH
James A. Fike, M.D.
Lieutenant Commander Stephen Fischer, MC, USN
David A. Florin, Ph.D.
Gary D. Gackstetter, Ph.D., D.V.M., MPH
Anuradha Ganesan, M.D.
Lieutenant Colonel Shawn M. S. Garcia, MC, USN
Joel C. Gaydos, M.D.
Tsega A. Gebreyesus, Ph.D.
Lieutenant Colonel Christopher A. Gellasch, MS, USA
Schuyler K. Geller, MD
Lieutenant Commander Sarah C. Godwin, MC, USN
Lieutenant Commander Tifani L. Grizzell, MC, USN
Gregory C. Gray, M.D.
Captain Robert Guido, MC, USA
Rear Admiral Marlene E. Haffner, USPHS
Pertti J. Hakkinen, Ph.D.
Lieutenant Commander Jessica M. Hameed, MC, USN
Lieutenant Colonel Michael C. Hartzell, USAF, BSC
Mr. Stephen J. Henske
Colonel Patrick Hickey, MC, USA
Stella E. Hines, M.D.
Elizabeth J. Hisle-Gorman, Ph.D.
Commander Andrew C. Hoburg, MSC, USN
Michael J. Hodgson, MD, MPH
Captain David F. Hoel, MSC, USN
Stephen L. Hoffman, M.D.
Tomoko I. Hooper, M.D.
Captain Joseph J. Hout, MS, USA
Christine S. Hunter, M.D.
Colonel Mylene T. Huynh, USAF, MC, FS
Colonel Lidia Ilcus, USAF, MC
Kevin M. Jackson, O.D.
Captain Christopher J. Jankosky, MC, USN
Rahul Jindal, M.D., Ph.D.
Lieutenant Commander Lucas Johnson, MC, USN

Bruce H. Jones, M.D.
Lieutenant Colonel Kenneth D. Jones, III, MSC, USA
Olcay Y. Jones, M.D., Ph.D.
Jason F. Kaar, J.D.
Major Edwin Kamau, MC, USA
Specialist Jean Jacques Kayembe-Kashondo, USA
Mark E. Keim, M.D.
Patrick W. Kelley, M.D.
Teresa Kemmer, M.D.
Nino Kharaishvili, M.D.
Lieutenant Colonel Brian U. Kim, VC, USA
Commander Linda G. Kimsey, MS, USN
Thomas D. Kirsch, M.D., M.P.H., F.A.C.E.P.
Christopher R. Kleinsmith, D.O., MPH
Joseph J. Knapik, Sc.D.
Lieutenant Colonel Amy K. Korman, MS, USA
Colonel Mark G. Kortepeter, MC, USA
Teresa L. Krakauer, Ph.D.
Margot R. Krauss, M.D.
Lieutenant Colonel Paul O. Kwon, DO, MC, USA
Paresh V. Lakhani, MD, MPH, MBA
Major Charlotte A. Lanteri, MS, USA
Lieutenant Commander Eric Larsen, MC, USN
Larry W. Laughlin, M.D., Ph.D.
Suzanne Leclerc-Madlala, Ph.D.
Elizabeth H. Lee, D.P.H.
Lynn I. Levin, Ph.D.
Lieutenant Colonel Paul E. Lewis, USAF, MC
Colonel Nicholas G. Lezama,USAF, MC
Qiong Li, Ph.D.
Jie Lin, Ph.D., MPH
Kenneth Lin, M.D., M.P.H.
James F. Loomis, Jr., M.D.
Lieutenant Colonel Robert G. Lowen, MSC, USA
Diana M. Luan, Ph.D.
Boris D. Lushniak, MD, MPH, USPHS
Major Eric A. Lutz, USAF, BSC, ANG
Scott Lyons, J.D.
Timothy M. Mallon, MD, MPH
Eric S. Marks, M.D.
David B. Martin, M.D.
Captain Gregory J. Martin, MC, USN
Penny M. Masuoka
Peter G. Matos, DO, MPH, MS
Katrin Mende, Ph.D.
Melissa K. Miller, MS
Colonel Robert S. Miller, MC, USA
Raul A. Mirza, D.O.
Captain Joel M. Montgomery, MSC, USPHS
Rear Admiral Kenneth P. Moritsugu, USPHS
Jittawadee Murphy, Ph.D.
K. Darwin Murrell, Ph.D.
Commander Cameron J.L. Nelson, MC, USN
David W. Niebuhr, M.D.
Adi Noiman, Ph.D.
Scott A. Norton, M.D.
Thomas O'Bryan, M.D.
Lieutenant Colonel Jason F. Okulicz, USAF, MC
Captain Samuel T. Olaiya, MC, USN
Jean L. Otto, D.P.H.
Colonel Laura Ann Pacha, MC, USA
Lieutenant Colonel Gabriella M. Pasek, MS, USA
Julie A. Pavlin, M.D.
Dana S. Perkins, Ph.D.
Colonel Matthew J. Peterson, USAF, MSC
Simon D. Pollett, MBBS
Christina Polyak, M.D.
Chad Porter, M.P.H.
Joseph A. Procaccino, Jr., J.D.
Commander Michael B. Prudhomme, MC, USN
Gerald V. Quinnan, Jr., M.D.
Lieutenant Colonel Sueann O. Ramsey, MSC, USA
Sarah E. Raskin, Ph.D.
Captain Paul L. Reed, USPHS
Captain James J. Reeves, MC, USN
Major Ricardo A. Reyes, MS, USA
Allen L. Richards, Ph.D.
Captain Mark S. Riddle, MC, USN
Douglas J. Robb, D.O., MPH
Donald R. Roberts, Ph.D.
Captain Paul D. Rockswold, MC, USN
Lieutenant Commander Amy E. Rogers, MC, USN
Colonel Douglas M. Rouse, USAF, MC
Commander Brianna L. Rupp, MC, USN
Captain Kevin L. Russell, MC, USN
Margaret A. Ryan, M.D.
Jose L. Sanchez, M.D.
Captain Marlene L. Sanchez, MC, USN
Rumu Sarkar, Ph.D.
Colonel David L. Saunders, MC, USA
Michael A. Sauri, MD., MPH & TM
Commander Sharon Saydah, USPHS
Lieutenant Commander Nicholas C. Schaal, MSC, USN
Karen A. Schwab, Ph.D.
Paul T. Scott, M.D., M.P.H.
Stephanie L. Scoville, D.P.H.
Lieutenant Commander Peter G. Seguin, MC, USN
Commander Tammy Servies, MC, USN
Commander Danny T.Y. Shiau, MC, USN
Sayed A. Shinwari, MD., MPH
Colonel Eric E. Shuping, MC, USA
Captain Michael P. Shusko, MC, USN
Julia Slutsman, Ph.D.

Dale C. Smith, Ph.D.
Philip A. Smith, Ph.D.
Captain Stephanie S. Smith, MC, USA
Bonnie L. Smoak, M.D.
Anastasia M. Snelling, Ph.D.
Richard F. Southby, Ph.D.
Shauna L. Stahlman, Ph.D.
Commander Michael E. Stevens, Jr., MSC, USN
Lieutenant Colonel Michael J. Stone, USAF, MC
Kandra Strauss-Riggs, MPH
Douglas B. Tang, Ph.D.
Lieutenant Colonel Kevin M. Taylor, MC, USA
Richard J. Thomas, M.D.
Colonel Thomas C. Timmes, MS, USA
Mr. Walter W. Tinling
Lieutenant Commander Tyler Towers, MC, USN
Thomas W. Travis, M.D.
Captain David H. Trump, MC, USN
Michael J. Turell, Ph.D.
Aaron Tustin, M.D., M.P.H.
Jeff S. Tzeng, D.O., M.P.H., M.B.A.
William F. Umhau, M.D.
Lieutenant Commander Robert N. Uniszkiewicz, MC, USN
Lieutenant Commander Jaime Vega, MC, USN
Kelly G. Vest, DVM
Eileen D. Villasante, Ph.D.
Major Jameson D. Voss, USAF, MC
Stephen G. Waller, O.D., M.D.
Jane B. Ward, OD, MD, MPH
Peter G. Warfe, M.D.
Virginia M. Weaver, M.D., M.P.H.
Major Bryant J. Webber, USAF, MC
Colonel Peter J. Weina, MC, USA
Marleen M. Welsh, Ph.D.
Lieutenant Commander Timothy Welsh, MS, USN
Major Duvel W. White, MSC, USA
Antoinette A. Whitmeyer
Colonel Jason S. Wieman, MC, USA
Colonel Andrew R. Wiesen, MC, USA
Kenneth J. Wilkins, Ph.D.
Alan L. Williams, M.D.
Carlos D. Williams, M.D.
Commander Maya Williams, MSC, USN
Cindy C. Wilson, Ph.D.
Colonel Ramey L. Wilson, MC, USA
Colonel Catherine T. Witkop, USAF, MC
Joseph V. Woodring, D.O.
Kangmin Zhu, Ph.D.

GRADUATES

1983
FALK, Leo J., MD, MPH
JACKSON, Frederick L., DO, MPH, CDR MC USN
LONG, Truman E., MD, MPH, CDR MC USN
MARAIST, Donald J., MD, MPH, CDR MC USN
TECEC, Thomas G., DVM, MPH, CPT VC USA

1984
McGINLEY, John L., DDS, MPH, LCDR DC USN
MIEDZINSKI, Mollie M., BS, MPH
MITCHELL, Benjamin S., MD, MPH, LCDR MC USN
PAULSEN, H. Jay, MD, MPH, CDR USPHS

1985
ARTHUR, James S., DDS, MPH, CDR DC USN
BESSER, Yheskel, AB, MPH, COL, IDF
BISHOP, William C., MD, MPH, CDR MC USN
CLARKE, William R., MD, MTM&H, LtCol MC USAF
DREIS, Michael W., BS Pharm, MPH, LCDR USPHS
KELSEY, Charles, Jr., DVM, MPH, CPT VC USA
LEVINE, Debra A., BSN, BA, MPH
LYONS, Fred E., DVM, MPH, CPT VC USA
ROSENSTOCK, Joel, MD, MPH, LCDR MC USNR

1986
BASH, Margaret C., MD, MPH, LT USPHS
BEADLE, Christine, MD, MPH
BLUMENBERG, Thomas L., BS Pharm, MPH, LCDR USPHS
CALDWELL, M. Blake, MD, MPH, LCDR MC USNR
IQBAL, Mohammed, MD, MPH, LtCol, Pakistan AMC
MICHALOSKI, Cathleen, BSN, MPH
PEARSON, Kay, BS Pharm, MPH, CAPT USPHS
RECHES, Moshe, MSC, MPH, LtCol, Israeli Defence Forces
SAVAGE, Gale, MD, MPH
SIMMONS, John, MD, MPH, MAJ MC USA
SMITH, Kermit, DO, MPH, CDR USPHS
SUANSILPPONGSE, Aroon, MD, MPH
TAMIR, Arnon, MD, MPH, MAJ, IDF
WEIR, Robert, DVM, MPH, CPT VC USA
YANEY, Sandra, M.N., MPH, CPT NC USA

1987
BORDERS, Rosa M., MD, MPH
BURR, Peggy Q., BS, MPH
DAVEY, Victoria, BSN, MPH
GROCHMAL, David L., DDS, MPH, LCDR DC USN
HEIBA, Ibrahim M., MD, MTM&H
KIRKPATRICK, Laura, AB, MPH
McNABB, Cheryl Hisatomi, BS, MPH
OLSON, Richard, MD, MPH, CDR USPHS
PARKER, John A., MD, MTM&H, MAJ MC USA
PEREZ, Thomas R., R.Ph., MA, MPH, LCDR USPHS
RONISH, Ross, MD, MPH, Capt USAF MC
ROSEN, Steven, BS, MPH
STEWART, William R., MD, MPH, LCDR MC USN
TEMPLE, Diana J., AB, MPH

1988
BERTSCHE, Patricia K., BSN, MPH
BEYMER, Charles H., Dr Pharm, MPH, LT USPHS
BRADY, William E., BS, MPH
CHAUDRY, M. Ashraf, MBBS, MPH, Maj, Pakistan AMC
DIEMER, Margretta M., MD, MPH, MAJ MC USA
DORON, Eytan, BA, MPH, Lt Col, IDF
GUM, Robert M., DO, MPH, CPT MC USA
HANSON, Kevin, MD, MPH, LCDR MC USN
HOOPER, E.Y., MD, MPH, CDR USPHS
JOHNSON, George M., MD, MPH, Capt USAF MC
LAI, Sheng-han, MD, MPH
MIDDLETON, Timothy, M.E., MPH, Maj USAF BSC
MILLER, Marissa A., DVM, MPH, LT USPHS
PHILLIPS, Kenneth G., MD, MPH, CPT MC USA
SANBORN, Jill S., BS MPH
SMERZ, Richard W., DO, MTM&H, LTC MC USA
TONAT, Kevin, BA, MPH, LT USPHS
TROULLOS, Emanuel S., DMD, MPH
ZAFAR, Abdul, MBBS, MPH

1989
CABIRI, Mordechai, BA, MPH, Lt Col, IDF
CANDLER, Wm H., Jr., MS, DO, MTM&H, CPT MC USA
CARR, Michael W., DVM, MPH, MAJ MC USA
CHEN, Kyone (Joe), MBBS, MPH
KADLEC, Robert P., MD, MTM&H, Maj USAF MC
LIU, Lei, MD, MPH
MITCHELL, Glenn W., MD, MPH, LTC MC USA
PRUETT, Richard K., MD, MPH
REED, William W., MD, MPH, MAJ MC USA
SCOTT, Steven G., MD, MPH, LT USPHS
SHOSHAN, Nimrod, MD, MPH, Lt Col, IDF
SMITH, Phillip L., MD, MPH, LCDR USPHS
TAYLOR, Dewayne G., DVM, MPH, MAJ VC USA
VINCENT, Dale S., MD, MPH, MAJ MC USA
WARFE, Peter G., MBBS, MTM&H, Lt Col, RAAMC
WEST, Peter Amory, MD, MPH

1990

ALSHECH, Itzhak, MD, MPH, Maj, IDF
ANDERSON, James W., MD, MTM&H, MAJ, Canadian Forces
BERGEISEN, Gershon H., MD, MPH, CDR USPHS
CAUDLE, Lester C., III, MD, MTM&H, CPT MC USA
GOFORTH, Gary, MD, MTM&H, MAJ MC USA
HEIL, John R., MD, MPH, LCDR MC USN
HOLDER, Keith, MD, MPH, LCDR MC USN
JAJOSKY, Philip, MD, MPH, Ph.D., CDR USPHS
KHAN, Ahmed, M.B.B.S., MPH, Maj, Pakistan AMC
MAY, Laurel A, MD, MPH, LCDR MC USN
McCARDLE, Peggy D., MPH, Ph.D.
MYETTE, Thomas L., MD, MPH, CDR, Canadian Forces
NOWAK, Rudolf Z., MD, MPH, MAJ, Canadian Forces
OLESEN, Mark C., MD, MPH, LCDR MC USN
PELLOSIE, Carmine, D.O., MPH, LCDR MC USN
PESSONEY, John T, MD, MPH, CAPT MC USN
POLANCO, Jorge A, MD, MPH, Belize MOH
RAFORD, Paul, MD, MPH, LCDR USPHS
REDFORD, Maryann, DDS, MPH
SALAZAR, Guillermo J., MD, MPH
SCHUCKENBROCK, David R., DVM, MPH, MAJ VC USA
SCHWARTZ, Keith A., BS, MPH
SHERMAN, Stephanie J., DVM, MPH, LTC VC USA
STINSON, Nathaniel, MD, MPH, PhD, CDR USPHS
TANCHEZ, Mario, MD, MPH, Maj USAF MC
TANNER, Ann L., BS, MPH
WILLIAMS, Richard P., MD, MPH, CDR MC USN
ZABARI, Arnon, BA, MPH, Lt Col, IDF

1991

BELIZARIO, Vicente Y Jr., MD, MTM&H
BHATTY, Nusrat, MBBS, MPH
BURTE, Francoise, MD, MPH
CHANDLER, Bruce P., MD, MPH, CDR, USPHS
CHEN, Xi, B.S., MPH
CRAIG, Stephen C., DO, MTM&H, MAJ MC USA
CUMMINGS, Curtis E., MD, MPH, CDR MC USN
deJESUS, Antonita V., MD, MPH, CAPT MC USN
HEATH, Stephen W., MD, MPH, CAPT USPHS
HAR-NOY, Shmuel, MSc, MPH, Lt Col MC, IDF
HUNTER, James R., BS, MPH, LCDR USPHS
JAJOSKY, Ruth A., DMD, MPH
JORDAN, Wanda M., BS, MPH
KIM, Dong Hyun, MD, MPH
LIMPERT, Scott F., MD, MPH, LCDR MC USN
MASTERS, Carolyn F., BA, MPH
MIRANDA, Jose R., MD, MPH, LCDR USPHS
MOORHEAD, John A., MD, MPH, LCDR USNR
OMORI, Deborah J., MD, MPH, MAJ MC USA
VASUT, Debbie J., DVM, MPH, CPT VC USA
YORK, Andrew K. II, DMD, MPH, LCDR DC USN

1992

BURKE, Laurie B., BS, MPH, LT USPHS
CRAIG, Peter George, MBBS, MTM&H
FALLON, Ann P., MD, MPH, LT MC USN
FERNANDEZ, Ildefonso S., MS, Ph.D.
HIRA, Subhash K., MBBS, MPH
KACZMARCZYK, Joseph M., DO, MPH, CDR USPHS
KARNEI, Karen Z., BSN, MPH
KEARY, Frank V., MD, MPH
GARKAPARTHI, Mohan Kishore, MBBS, MTM&H
LANDRY, Frances J., MD, MPH, CPT MC USA
LEE, Lionel Kim H., MBBS, MPH
LEWIS, Drew E., MD, MTM&H, LCDR MC USN
LYNCH, Kathryn Jo, PhD, MPH
MARPLE, Richard, MD, MPH, MAJ MC USA
McARTHUR, Jon A., BS, MPH, CDR USPHS
McGUIRE-RUGH, Karen, BSN, MPH
1992 (continued)
MEO, Ahmed Bashir, MBBS, DPH, MPH, MAJ MC Pakistan AMC
OLIGNY, Christopher, BS, PA, MPH
PELEG, Jacob, BA, MA, MPH, LtCol IDF
PITTS, Michael B., MBBS, MPH
RUELL, Ellen Mary, BS, MEd, MPH

1993

BRAITHEWAITE, Lana L., BS, MPH
CHADWICK, Gary, DPh, MPH, CAPT USPHS
DOWNING, Denise M., BA, MPH
FARRAR, Curtis Lynn, MPH, CDR USPHS
GEFROH, Gary J., BS, MPH, LT USPHS
HENDERSON, Kenrick G, BS, MPH
MAAS, Vernon A, MD, MPH, LT USPHS
MARLIN, Kay, BA, MPH
McMAHON, David, BS, MPH, LTJG USPHS
MURPHY, Frances M., MD, MPH
NEALE, John Franklin, DDS, MPH, CDR USPHS
PIERCE, Elizabeth A, BS, MPH
ROHRER, Rebecca J, BS, MPH
ROY, Michael, MD, MPH, CPT MC USA
SCHUTT, Robert W., DDS, MPH, LCDR DC USN
SCOTT-WRIGHT, Alicia O., MD, MPH, MTM&H, LCDRUSPHS
TAKASHIMA, Herbert T, MD, MPH, CAPT USPHS
TANI, Yukiko, BSN, MPH, LT USPHS
WATTENDORF, Nicole, BS, MPH
WELLS, Glen, MD, MPH, Lt Col RAAMC

1994

ALTARAC, Maja, MD, MPH

AUSTER, Rosalie, MD, MPH
BALL, Robert, MD, MPH, LCDR MC USN
BONA, James D., BS, CDR USPHS, MPH
CASERTA, Vito M., MD, MPH, CDR MC USPHS
EVERETT, Nancy, RN, BS, MPH
FEIGHT, Andrea G., DMD, MPH, CDR USPHS
GOLDBERG, Avishy, MA, MPH, Lt Col, IDF
GRAF, James A., DO, MPH, CDR MC USN
HALL, Elvira L., DVM, MPH
HENDRICK, Byron B., MD, MPH, LCDR MC USNR
KARLBERG, Kristen K., BS, MPH
LEIENDECKER, Thomas, DDS, MPH, LCDR USN
LILLIE, Ralph B, BS, MPH, CDR USPHS, FDA
MONDRAGON, Donald, MD, MPH, CPT MC USA
MORRIS, Carolyn Blank, BA, MPH
MORRIS, Jeffrey S., BS, MPH, LTJG USPHS
RYAN, Margaret A.K., MD, MPH, LT MC USNR
SCHIBLY, Barbara A., PhD, MPH, MD, CDR MC USN
SONG, Guan-hong, MS, PhD
STOUTE, Ellen J., BS, MPH
TIOKASIN, Linda, BS, MPH, LTJG USPHS
WAGNER, Cheryl A., BS, MPH
YOSHINAGA, Mary F. Austen, BA, MPH

1995
ALLEN, James W., MD, MPH, CAPT MC USN
BALEIX, John C., MD, MPH, LCDR MC USN
BEAUJON, Jan R., MS, MPH, LT MSC USN
CHAMBERLIN, Judith, BS, MPH
CHAREONVIRIYAPHAP, Theeraphap, PhD
COLE, Marlene N., DVM, MPH, CAPT VC USPHS
EMERSON, Maura A., MD, MPH, CDR MC USN
FLORIO, Emily, Ph.D., MPH
GALLAURESI, Beverly A., RN, BS, MPH
HOOPER, Tomoko, I., MD, MPH
JONES, David L., MD, MPH, MAJ MC USA
JONES, Trevor R., MA, PhD, MPH, LCDR MSC USN
KANESA-THASAN, Niranjan, MD, MTM&H, MAJ MC USA
KARITIS, J. William, DMD, MPH, LCDR DC USN
LANGE, Susan C., BS, MPH
LI, Jun, MD, SMMC, PhD
LINDQUIST, H.D. Alan, MEnvSci, PhD
MAPES, Peter B, MD, MPH, MAJ MC USAF
McBRIDE, Wayne Z., DO, MPH, LCDR MC USN
McCLOSKEY, Carolyn A., MD, MPH
MORGAN, Jacqueline, MD, MPH, Col MC USAF
SHERMAN, S. Scott, MD, MPH, LCDR MC USN
SMITH, April P., BS, MPH
SWARTWORTH, Wm J., MD, MPH, LCDR MC USN
TOWLE, Cynthia, PA, MPH
WALTERS, Terry J., MD, MPH, MAJ MC USA
WILCOX-RIGGS, Sandra L., MD, MPH, LTC MC USA
YANCY, April D., DVM, MPH
YUND, Alan J., MD, MPH, CDR MC USN

1996
BRIAND, Edward J., DVM, MPH, CPT VC USA
BUCHANAN, Kelvin C., DVM, MPH, CPT VC USA
CAMPBELL, James R., PhD, MPH, CDR MSC USN
DEUSTER, Patricia A., PhD, MPH
(1996 Continued)
DIEHL, Mark C., DDS, MPH, CDR USN
FREEMAN, Annette K., DVM, MPH, CPT VC USA
FULLER, Linda J., DO, MPH, CDR MC USN
GABRIEL, Mary E., MD, MTM&H, LtCol USAF MC
HALL, Matthew D., MD, MPH, LCDR USPHS/USCG
HARPER, Kristina, BA, MPH
HAZOUT, Yehiel, MA, MPH, LtCol MC IDF
HOHENHAUS, Guy S., DVM, MPH
HOLLAND, John D., BS, MPH, LT USPHS
INOUYE, Lisa S., MD, MPH, LT MC USNR
JACKSON, Jeffrey L., MD, MPH, MAJ MC USA
LaMAR II, James E., MD, MPH, LCDR MC USN
MALAKOOTI, Mark A., MD, MTM&H, LT MC USNR
MILLER, Kelly J., BA, MPH
PETERSEN, Kenneth E., DVM, MPH
RUSSELL, Kevin L., MD, MTM&H, LT MC USN
SCHIRNER, Wayne A., DO, MPH, LTC MC USA
SILVERS, Linda E., DVM, MPH
SMITHWICK, Joel A., MD, MPH, LT MC USNR
SNYDER, Ricky L., DO, MPH, LCDR MC USN
SUTTON, Ernest L., MD, MPH, COL MC USA

1997
ARMSTONG, Karyn L., DVM, MPH, CPT VC USA
BERNIER, J. Jean-Robert S., MD, MPH, MAJ Canadian Forces
BRADSHAW, Robert D., MD, MPH, LtCol USAF MC
DEALMEIDA, Genevive, MS, MPH
DUVERNOY, Tracy S., DVM, MPH
ELTING, Jeffrey, MD, MPH, LTC MC USA
FISHER, Carol A., DVM, MPH, Maj USAF BSC
GIBBONS, Robert V., MD, MPH, CPT MC USA
HAKRE, Shilpa, BSC, MPH
HARRIS, Linda D., DVM, MPH, CPT VC USA
HEFFLIN, Brockton J., MD, MPH, LCDR MC USPHS
ISENBARGER, Daniel W., MD, MPH, MAJ MC USA
LEISHMAN, Martha F., BSN, MPH
MARINO, Karma D., MPH
MAWN, Stephen V. MD, MPH, CDR MC USN
McCARTHY, Michael C., MD, MPH, CDR MC USN
McMILLAN, David L., MD, MPH, CDR MC USN
MITTON, Robert H., DDS, MPH, LCDR MC USN

NAHIN, Richard L., PhD, MPH
POTTER, Robert N., DVM, MPH
SNEAD, Thomas A., MD, MPH, CDR MC USN
THORSON, Lisa T., MD, MPH, LCDR MC USN

1998

ARNESS, Mark K., MD, MTM&H, Maj USAF MC
BAUGH, Keith J., MD, MPH, MAJ MC USA
BENEDEK, Paul, MD, MPH, COL MC IDF
BERG, Thomas C., DFVM, MPH, Maj USAF BSC
BETTENCOURT, Jr., Bernard M., DO, MPH, MAJ MC USA
CAMARCA, Margaret M., BSN, MPH
CHAUDHRY, Amjad M., DVM, MPH, CPT VC USA
COOK, Keith W., BS, MPH, LT USPHS
GRAHAM, Sherry L., DVM, MPH, CPT VC USA
JAN, Moore, MD, MPH, LCDR MC USN
MALEY, Elizabeth A., MD, MPH, LT MC USN
MALINER, Beverly I., DO, MPH, LTC MC USA
McKULA, Melanie L., BS, MPH
O'MALLEY, Patrick G., MD, MPH, MAJ MC USA
PETITT, Patricia L., DO, MPH, LT MC USN
PRASCSAK, George M., BS, MPH, Maj USAF
SANTORO, James A., MD, MPH, CPT MC USA
SCHOR, Kenneth W., DO, MPH, CDR MC USN
SHEETS, James T., DVM, MPH, CPT VC USA
SMART, John D., BS, MPH, LT USPHS
STATEN, Jr., David C., BS, MPH
STAUDENMEIER, James J., MD, MPH, MAJ MC USA
STUART, Kelly A., MD, MPH, CPT MC USA
STUTLER, Shannon A., DVM, MPH, CPT VC USA
SYLVESTER, Theresa K., BS, MPH
TAKAFUJI, Julia A., BS, MPH
TONEY, Steven D., DVM, MPH, Maj USAF BSC
WEISS, Yosef, MA, MPH, LtCol MC IDF
WEST, Norman S., MS, MPH, CPT USAF BSC

1999

BANGS, Michael J., MSPH, PhD, LCDR MSC USN
BLANKENSHIP, Tammy L., MD, MPH, LCDR MC USN
BRADY, P. Jeffrey, MD, MPH, LT MC USNR
BRYCE L. Michelle, DO, MTM&H, Maj USAF MC
BUTLER, William P., DO, MTM&H, LtCol USAF MC
CHAPMAN, Alice S., DVM, MPH, Capt USAF BSC
DALAL, Stephen J., DVM, MPH, CPT VC USA
(1999 Continued)
DUQUE, Jr., David, DVM, MPH, Maj USAF BSC
EGGLESTON, Thomas A., DVM, MPH, CPT VC USA
FITZHARRIS, Joseph B., MD, MPH, COL MC USA
HARRE, Joseph G., DVM, MPH, CPT VC USA
KILBANE, Edward M., MD, MPH, CAPT MC USN
MacINTOSH, Victor M., MD, MPH, LtCol USAF MC
MAGUIRE, Jason D., MD, MPH, LT MC USN
MARTSCHINSKE, Robert O., MD, MPH, LCDR MC USN
McCORD, Cedric F., MD, MPH, CPT MC USA
McDONALD, Kimberly K., MD, MPH, LT MC USN
McKENZIE-GARNER, Pearline, MD, MPH, MAJ MC USA
MULLINS, J.Andrew, DVM, MPH, Maj USAF BSC
NESBY-O'DELL, Shanna L., DVM, MPH, CDR USPHS
NIEBLAS, Minda G., MD, MPH, LT MC USN
NIEHOFF, Steve, DVM, MPH, Maj USAF BSC
O'MARA, Ann M., PhD, MPH
PEDERSON, Charles L., MD, MPH, CPT MC USA
PHINNEY, Lloyd T., DVM, MPH, CPT VC USA
PROBST, Richard J., DVM, MPH, CPT VC USA
SCHULTZ, Stephen T., DDS, MPH, LCDR DC USN
SMITH, Doreen A., MS, MPH, Maj USAF NC
TOMKINS, Glen E., MD, MPH, MAJ MC USA
TRIBBLE, David R., MD, MPH, CDR MC USNR
ZENTRICH, Eve C., MA, MS

2000

ADESANYA, Margo R., DDS, MPH, CDR USPHS
BATSEL, Tanis M., MD, MPH, LCDR MC USN
BROWN, Linda M., MPH, DrPH, CAPT USPHS
BURGESS, Timothy H., MD, MPH, LT MC USN
CANNON, Loraine D., DVM, MPH,
CLAGETT, Christopher D., MD, MPH, LCDR MC USN
CLARKE, Thomas F., MD, MPH, Maj USAF MC
CROSLAND, Telita, MD, MPH, MAJ MC USA
EKSTRAND, John R., MD, MPH, MAJ MC USA
FLETCHER, David J., DVM, MPH
GOLANI, Rafael, MA, MPH, LTC IDF
GOODRICH, Scott G., DO, MPH, LTC DC USA
GROSCH, Kit C., BS, MPH, LCDR USPHS
GUTMANN, Frank D., MD, MPH
HASKE, Terry L., MD, MPH, Maj USAF MC
HAYNES, Margaret F., DVM, MPH, Capt USAF BSC
HEBRINK, Scott T., DVM, MPH, Capt USAF BSC
HOLT, Rebecca K., DVM, MPH, CPT VC USA
HUANG, Grant D., MPH
JACOCKS, John M., MD, MTM&H, LTC MC USA
KATES, Christopher T., BS, MPH, LCDR USPHSR
KELSEY, Fred C., DVM, MPH, LtCol USAF BSC
KILIAN, Dennis B., MS, MSPH, CPT MS USA
KLUCHINSKY, Jr., Timothy A., MBS, MSPH, CPT MS USA
LANGSTEN, Randall L., DVM, MPH, Maj USAF BSC
LOPEZ, Kenneth R., DVM, MPH, CPT VC USA
LYNCH, John P., MD, Maj USAF MC
MARTIN, Gregory J., MD, MPH, CPT MC USA
MILLER, Barry A., MSPH, DrPH, CAPT USPHS
NAITO, Neal A., MD, MPH, CDR MC USN

OLLAYOS, Curtis W., MD, MPH, LCDR MC USN
ORTMAN, Brian V., DVM, MPH, Maj USAF BSC
RICO, Redro J., DVM, MPH, CPT VC USA
SCHNEIDER, Diana L., MA, DrPH
SCHWARTZ, Erica G., MD, MPH, LT MC USNR
SEVILLA, Nereyda L., BS, MPH, 1LT USAF BSC
SMITH, Pamela D., MD, MPH, Capt USAF MC
STETTO, Jayne E., MD, MPH, Maj USAF NC
THOMPSON, Jennifer C., MD, MPH, MAJ MC USAR
WINTERTON, Brad S., DVM, MPH, Capt USAF BSC

2001

AIMPUN, Pote, MD, DrPH, Capt MC Thai Army
ANDERSON, Steven M., BS, MPH, Capt USAF BSC
BAILEY, Rachel L., DO, MPH, CPT MC USA
BELL, Michael R., MD, MPH, MAJ MC USA
BLAZES, David L., MD, LCDR MC USN
CHAMBERLIN, Judith A., MPH, DrPH
CLABORN, David, MS, DrPH, LCDR MSC USN
DANE, Dana, DVM, MPH, Maj USAF BSC
DAVIS, Barbara E., DVM, MPH, Maj USAFR BSC
DEUTSCH, Wayne M., DDS, MPH, CDR USN DC
FAIX, Dennis J., MD, MPH, LT MC USN
GOULD, Philip L., MD, MPH, Maj USAF MC
GRIECO, John P., MS, PhD
HANSON, Chris E., DVM, MPH, MAJ VC USA
HUYNH, Mylene T., MD, MPH, Maj USAF MC
KETZENBERGER, Bryan K., DVM, MPH, MAJ VC USA
KLUCHINSKY, Jr., Timothy A., MBS, MSPH, DrPH, CPT MS USA
LANDRO, Frederick J., MD, MPH, CDR MC USN
MALONEY, Elizabeth, DrPH
McCOY, Gretchen A., MD, MPH
MONGEAU, Susan W., DDS, MPH, Lt Col USAF DC
NISKA, Richard W., MD, MPH, CAPT USPHS
SALERNO, Stephen M., MD, MPH, MAJ MC USA
SARDELIS, Michael, PhD, MAJ, USA
SHARMA, Archna N., MD, MPH
TASHIRO, Ken M., MD, MPH, Lt Col USAF MC SFS
THOMAS, Joseph G., MD, MPH, LCDR MC USN
WEGNER, Mark V., MD, MPH
WEI, Gina S., MD, MPH
WELCH, Paul G., MD, MPH, COL MC USA
ZINDERMAN, Craig E, MD, MPH, LT MC USN

2002

AMON, Joseph, PhD
CARTER, Gary W., MPH, LT, USPHS
COMPLETO, John D., MD, MPH, CPT, MC, USA
CONNER, Bryon F., MD, MPH, LCDR, MC, USN
DUNN II, James C., MD, CDR MC USN
EADER, Scott A., MD, MPH, CPT, MC, USA
FEUERSTEIN, Michael, MD, MPH
FLYNN, Joseph M., MD, MPH, MAJ, MC, USA
HALL, Tara L., BA, MSPH, CPT, MS, USA
HARTZELL, Michael C, MPH, Lt Col, USAF, BSC
HEMMER, Paul A., MD, MPH, Lt Col, USAF, MC
HROCH, Brian E., MPH, LT, USPHS
KASOWSKI, Eric J., MD, MPH, LCDR, MC, USN
KAZEROUNI, Niloufar, DrPH
KEELER, Natalie M., MPH, Capt, USAF, BSC
KIMM, Gregory L., BS, MSPH, MAJ, MS, USA
LAPA, Joyce A., MD, MPH, CAPT, MC, USN
LYONS, Keegan M., MD, MPH, Capt, USAF, MC
MAHER, Paul D., MD, MPH, LT, USPHS
MCCANNON, Charles E., MD, MPH, LCDR, MC, USN
MEIER, Michael J., MD, MPH, LCDR, MC, USN
MISHOE, Helena O., MPH, CAPT, USPHS
MURRAY, Len E., DVM, MPH, MAJ, VC, USA
NEWMAN, Sara, DrPH
ORTIZ, Jose M., MD, MPH, MAJ, MC, USA
ROBINSON, Christopher S., MA, PhD, MPH, Maj USAF BSC
SCOVILLE, Stephanie, DrPH
SHEEHAN, James J., MD, MPH, MAJ, MC, USA
STAKER, Michael L., MD, MPH, CPT, MC, USA
SZETO, Astrid L., MPH, LCDR, USPHS
TAI, Ting J., MD, MPH, CPT, MC, USA
THOMAS-FUENTES, Maria R., MD, MPH
THORNTON, Venita B., DVM, MPH, LCDR, USPHS
TORRIE, Ian D., MD, MPH, Lt (N), Canadian Forces
VAUGHN, Andrew F., MD, MPH, LCDR, MC, USN

2003

BENTZEL, David, DVM, MPH, MAJ, VC, USA
BERG, Sven, MD, MPH, LtCol, USAF, MC
BRANCH, Stacey, DO, MS, MPH, Capt, USAF, MC
BUFFETT, Stephanie J., RN, MSN, MPH, Capt, USAF, NC
CHAMPINE, Jon D., MPH
CIMINERA, Paul, MD, MPH, CPT, MC, USA
DANIELS, Colleen, MPH, CPT, SP, USA
DUFFY, Mark, MPH, Capt, USAF, BSC
FELT, Stephen, DVM, MPH, MAJ, VC, USA
FONSECA-RIVERA, Jose, MPA, MPH, Maj, USAF, BSC
GIBBINS, John D., DVM, MPH, DACVPM, Maj, USAF, BSC
HALL, Francis X., MD, MPH, LCDR, MC, USNR
HATZIGEORGIOU, Christos, MD, MPH, MAJ, MC, USA
HINDS, Sarah Bro, DVM, MPH, CPT, VC, USA
HOLTZCLAW, Suezane, MPH, LCDR, MC, USN
HAKRE, Shilpa, DrPH
HOOK, Gary, PhD, LCDR, MSC, USN
JACOBSEN, Kenneth, DVM, MPH, MAJ, VC, USA

JACOBSON, Jon R., DO, MPH, CPT, MC, USA
KELLER, Christopher, DVM, MPH, MAJ, VC, USA
KUENY, Monica B., MPH, LCDR, USPHS/USCG
LANGHAM, Gregory, DVM, MPH, LT, VC, USPHS
LEAL, Joanne R., DDS, MPH, CDR, DC, USN
MATIS, Steven, DDS, MPH, LCDR, DC, USN
MERRILL, Nancy, DVM, MPH, CPT, VC, USA
MILLIKAN, Amy, MD, MPH, CPT, MC, USA
MORIN, Nathalie, DDS, MPH, MAJ, Canadian Forces Dental Services
MULHALL, Brian, MD, MPH, MAJ, MC, USA
NGUYEN, TRAM T., MPH
OLSEN, Cara, MS, MPH
PHILLIPS, Stephen, MD, MPH, LTC, MC, USA
RICHARDSON, Joanne, MD, MPH, Maj, USAF, MC
SEEMAN, Paul, MD, MPH, LCDR, MC, USN
SHELTON, Larry, DVM, MPH, CPT, VC, USA
STONE, Kari, MPH, Capt, USAF, NC
TABATZKY, Christiane, MD, MPH
TJADEN, Jeffrey, MD, MPH, LCDR, MC, USN
TOMON, John, MSPH, LT, MSC, USN
WHITE, Sharon, MPH, LCDR, USPHS
WINGER, Kirk, DVM, MPH, Maj, USAF, BSC
DANIELS, Colleen, MPH, CPT, SP, USA

2004

ACHEE, Nicole, DrPH
AUSTIN-LANE, Joy, DrPH
BECK, Kimberly, MD, MPH, CPT, MC, USA
BERBANO, Elizabeth, MD, MPH, MAJ, MC, USA
BONHAGE, Michael, DVM, MPH, MAJ, MC, USA
BOWDEN III, Lynden, MD, MPH, CPT, MC, USA
BOYD, Sean, MPH, LCDR, USPHS
BROSCH, Lorie, MD, MPH, Lt Col, USAF, MC
COCKRUM, David, MD, MPH, Maj, USAF, MC
COGSWELL, Brad, MPH, Capt, USAF, MSC
CRAMER, David, MPH, LCDR, USPHS
EATON, Melinda, Capt, DVM, MPH, USAF, BSC
HACHEY, Wayne, MD, MPH, LTC, MC, USA
HARMAN, Dale, MD, MPH, LCDR, MC, USN
JOBANPUTRA, Nishith, MD, MPH, LCDR, MC, USN
LANG, Bradford; MPH
LAWLER, James, MD, MPH, LCDR, MC, USN
LUKE, Thomas, MD, MPH, LCDR, MC, USN
MACLARTY, Anne, MAJ, DVM, MPH, VC, USA
MAY, Lisa, DrPH
McPHERSON, Nicole, MPH
MOORE, Brian, MPH, Maj, USAF, BSC
MOORE, Vincent, MAJ, USA
OSTRANDER, Gregory, MPH, LT, MSC, USN
OTTO, William, MD, MPH, CPT, MC, USA
POEL, Christine, DVM, MPH, Maj, USAF, BSC
RITCHIE, Elspeth, MD, MPH, COL, MC, USA
ROCKSWOLD, Paul, MD, MPH, CDR, MC, USN
SCHAEFER, Richard, MD, MPH, COL, MC, USA
SELENT, Monica, DVM, MPH, Maj, USAF, BSC
SHUKAN, Evan, Maj, USAF, BSC
STRAUSS, Mark, MPH, LT, USPHS
SUNDSTROM, Julie, MPH, Capt, USAF, BSC
VEST, Kelly, LT, USN
WESTPHALL, Johann, MD, MPH, Maj, USAF, MC
WILSON, Keith, MPH, Capt, USAF, NC

2005

ABBOTT, Kevin, MD, MPH, LTC, USA, MC
ASSEFF, David, MD, MTM&H, LCDR, USNR, MC
BARTHEL, Robert, MD, MPH, LCDR, USN, MC
BATZ, Raymond, MD, MPH, LDCR, USNR, MC
CLARK, Krystyn, MSPH, Capt, USAF, BSC
COLLINS, Todd, MPH, CPT, USA, VC
DEZEE, Kent, MD, MPH, LTC, USA, MC
EAGAN, Paul, MPH, MAJ, Canada, CFMG
FAERBER, Juliann, MD, MPH, LCDR, USN, MC
FITZHUGH, Dawn, DVM, MPH, CPT, USA, MC
FYFFE, James, MSPH, Lt, USAF, BSC
GIBSON, Brent, MD, MPH, CPT, USA, MC
GUTKE, Gregory, MD, MPH, Capt, USAF, MC
HALVORSON, Heather, MD, MPH, CAPT USAF, MC
HANCOCK, Miranda, MPH, Capt, USAF, BSC
HEMLOCK, Bethany, MPH, Civ
HUNT, James, MPH, LT, USN, MSC
JOLIVET, Rima, MPH, CNM, MSN
KOCH, David, MSPH, LCDR, USN, MSC
KRAUTHEIM, Mark, MD, MPH, LtCol, USAF, MC
LANKIN, Kenneth, MD, MPH, CDR, USN, MC
LICINA, Derek, MPH, CPT, USA, MS
MALONE, John, MD, MPH.
MEDELLIN, Christopher, MD, MPH, MAJ, USA, MC
MICHAEL, Nack, CPT, MS, USA
O'CONNOR, Francis, MD, MPH, COL, USA, MC
PARRISH, Douglas, PhD, LT, USN
PIPER, Williams, LT, USAF, BSC
SHIAU, Danny, MD, MPH, LCDR, USN, MC
SHIMEALL, William, MD, MPH, LCDR, USNR, MC
SHINABERY, Lynn, DVM, MPH, Maj, USAF, BSC
SMELSER, Christopher, MD, MPH, CPT, USAR, MC
SUH, Ryung, MD, MPH, MAJ, USA, MC
TAYLOR, Jean, DrPH
THOMAS, Cynthia, DVM, MPH, USAF, BSC
TRIBBLE, David, DrPH
WILLIAMS, Piper, MSPH, Lt, USAF, BSC

2006

BEAL, Jessica, MPH, 1LT, USAF, BSC

(2006 Continued)
BRADBURY, Meredith, Ph.D, MPH
BROOKS, John, MC, MD, MPH, LCDR, USN, MC
BRUDER, Catherine, M.A. MPH
BRYANT, Chet, MSPH, Capt, USAF, BSC
CARR, Deborah, MD, USAF, BSC
COLLINS, Ryan, MPH
DOUGLAS, Kevin, MD, MPH, MAJ, USA, MC
FAJARDO, Kevin, MD, MTM&H, USAF, MC
FLORIN, David, Ph.D., LCDR, USN, MSC
GARGES, Eric, MD, MTM&H, CPT, USA, MC
GREEN, Kathy, MD, MPH, Maj, USAF, MC
HAMMETT, Mark, MD, MPH, CDR, USN
HOUT, JOSEPH J, MSPH, USA, MS
JOHANSON, Scott, MPH
KAN, Waikwong, MSPH, Capt, USAF, BSC
KRAHL, Pamela, MD, MPH, LCDR, USNR, MC
KRYGIER, Julie, MD, MPH, Maj, USAF, BSC
LAFORCE, Paul, Maj, MPH, Canadian Forces
LAKIN, Terrence, MD, LTC, MPH, USA, MC
LEIDEL, Jason, MSPH, Lt, USAF, BSC
McGUIRE, Christopher, MD, CPT, MPH, USA, MC
McMANUS, Catherine, VMD, MPH
MORAN, Michael, MSPH, USAF, BSC
NEWKIRK, Scott, MSPH, USA, MS
OKAMOTO, Misa, MPH, USAF, BSC
OZEROGLU, Muhammed, MSPH, LT, USN
RODRIQUEZ, Anne, MD, Maj, MTM&H, USAF, MC
SKINNER, Michael, MSPH, Capt, USAF, BSC
SOLTIS, Bryony, MD, MAJ, MPH, USA, MC
TAMMINGA, Cindy, MD, CDR, MPH, USN, MC
WADLEY, Rodney, MD, MAJ, MPH, USA, MC
WELLS, Natalie, MD, LT, MPH, USNR, MC
WU, Hongu, MD, MPH
WURAPA, Eyako, MD, MAJ, MTM&H, USA, MC
WYNN, Michael, MD, MPH, USA, MC

2007
AGEE, Brian, MD, LtCol, MPH, USAF, MC
ARNOLD, Sarah, MD, LCDR, MPH USN, MC
BERTI, Janice, MPH, USAF, NC
BOETIG, Bradley, MD, MPH, USAF, MC
BURKE, Robin, CPT, USA, VC
COOK, Greg, Dr. P.H., LCDR, USN, MSC
DERRICK, David, MPH, USA, MS
FLETCHER, Kendra, DVM, MSPH, Lt, USAF, BSC
GAMBINO-SHIRLEY, Kelly, Capt, MPH, USAF, BSC
GLEESON, Todd, MD, MPH, LCDR, USN, MC
HAUERSTEIN, Paul, MPH, LCDR, USN, MSC
KENT, Robert, MD, MAJ, MPH, USAF, MC
KIM, Andrew, MD, MPH, USA, MC
KING, Stephanie, DVM, MSPH, Lt, USAF, BSC
LACUNZA, Julia, MD, MPH, USN, MC
LIPSITZ, Robert, MD, MPH, CDR, USN, MC
LIVINGSTON, Brian, DVM, MSPH, Lt, USAF, BSC
LLANOS, Joseph, MD, MTM&H, MAJ, MC, USA
LUGO-ROMAN, Luis, DVM, MPH, CPT, VC, USA
MA, Kai-Wood, MD, LtCol, MPH, USAF, MC
MOCCIA, Krinon, DVM, MPH, MAJ, VC, USA
MONEY, Nisha, MD, MPH, Capt, USA, MC
MOZZACHIO, Alicia, MPH, LT, USPHS
OYSTER, Carolyn, MPH
PATTERSON, Steven, MD, MSPH, MAJ, USA, MS
RAMIREZ, Juan, MPH, Capt, USAF, BSC
RAZURI, Hugo, MD, MPH
REAVES, Erik, MD, MTM&H, LT, MC, USN
RILEY, Brian, MD, MPH, LCDR, USN, MC
RODRIGUEZ, Christopher, MD, MPH, CPT, USA, MC
ROGERS, Heather, M.S., MPH
SENSINTAFFER, Lowell, MD, MTM&H, LtCol, MC, USAF
SZPISJAK Dale, MD, MPH, CDR, USN, MC
TAYLOR, Brett, DVM, MPH, CPT, VC, USA,
TAYLOR, Kevin, MD, MTM&H, CPT, MC, USA
TERHAKOPIAN, Artin, MD, MPH, CPT, USA, MC
VICKERY, John, MPH
WENTWORTH, Michael, MD, MPH, LCDR, USN, MC
WONG, Jason, MD, MPH, LCDR, USN, MC
WOODLEE, Charles, MPH, LT, USPHS
WOODRING, Joseph, MD, MTM&H, CPT, MC, USA

2008
BEADLING, Matilda, MPH
BELLAND, Kris, MD, MPH CAPT, USN, MC
BOHEN, Erin, MPH
(2008 Continued)
BOWENS, Michael, MPH
BRETT-MAJOR, David, MD, MPH, LCDR, USN, MC
BRITTAIN, Rodney, LCDR, MPH, Canadian Forces
BROWN, Kevin, MD, MPH, LCDR, USN, MC
CHAPPELL, Mark, DVM, MPH, MAJ, USA, MC
CATYB, Joseph, DVM, MSPH, Capt, USAF, BSC
CHEN, Naili, MD, MPH, LtCol (Sel), USAF, MC, FS
CHERRY, Scott, MD, MPH, CPT, USA, MC
COOPER, Jared, MPH
DELZER, Jeffrey, MSPH, LT, USN
DOWLING, Glenn, MD, MPH, LCDR (Sel), USN, MC
EAGAN, Sheena, MPH
FINNELL, Val, MD, MPH, LtCol, USAF, MC
FREEMAN, Randall, MD, MTM&H, MAJ, MC
GREENBURG, David, MD, MPH, CPT, USA, MC
HAINES, Joe, MD, MPH, LCDR, USN, MC
HARRINGTON, Cherise, MPH
HASAN, Nidal, MD, MPH, CPT, USA, MC

HAWLEY, John, MSPH, LT, USN
HIGH, Patrick, DrPH
JACOBS, Michael, MD, MPH, CDR, USN, MC
LANG, Paul, MPH, CPT, USA
MCPHERSON, Nicole, DrPH
McKENZIE, Megan, MPH, Lt (N), Canadian Forces
MODY, Rupal, MD, MPH, CPT, USA, MC
MOORE, Thomas, MD, MPH, Maj, USAF, MC
MORRISON, Stephanie, MPH
MUNDACA, Carmen, MPH
OLSEN, Cara, MPH, DrPH
PAYNE, Kevin, MD, MPH, CPT, USA, MC
POWELL, Blaine, MD, MPH, LCDR, USN, MC
REYNOLDS, Mark, MD, MTM&H, MAJ, USA, MC
RIDDLE, Mark, MD, MTM&H, DrPH, LCDR, USN, MC
SANTIAGO, Patcho, MD, MPH, LCDR, USN, MC
SENSINTAFFAR, Lowell, MD, MPH, LtCol, USAF, MC
SESSIONS, Cecili, MD, MPH, Maj, USAF, MC
SHERMAN, Eric, MD, MPH, Capt, USAF, MC
SLOAN, Lloyd, MD, MPH, CDR, USN, MC
TARANTINO, David Jr, MD, MPH, CDR, USN, MC
WHEELER, Robbie, DVM, MSPH, Capt, USAF, BSC
WU, Hongyan, MD, MPH

2009

BOSWELL, Valerie, MPH
BROWN, Mark, MPH, LTC, MC, USA
BURKE, Ronald, DrPH
CLAUSEN, Shawn, MPH, LCDR MC, USN
CURRY, Jennifer, MPH, LCDR, MC, USNR
DABBS, Clifton, MPH, MAJ, MC, USA
DIEGO, Gonzalez, MTM&H, LTC, MC, USA
DRULIS, Michael, MPH, CPT, MS, USA
FARRIOR, Hope, MPH, MS
GARCIA, Shawn, MPH, LT, MC, USN
GEORGE, Susan, MPH, CPT, MC, USN
GIRARDI, Alyce, MD
GONZALEZ, Diego, MTM&H, LTC, MC, USA
GRIZZELL, Tifani, MPH, LT. MC, USN
HAYAT, Aatif, MPH, CPT, MC, USA
HOLLIS, Ewell, MPH, LCDR, MC, USN
JOHNSON, Jeremiah, MPH, Capt, USAF, BSC
KLINGENBERGER, Jane, MPH, Col, USAF
LANDESMAN, Roxanne, MPH, LT, MC, USN
MARTIN, Joesph, MPH, CDR, MC, USN
MCINNES, Donald, MSPH, Capt, Canadian Forces
MONEY, David, MPH, CDR, USPHS
MORROW, Meredith, MSPH
MOSS, Marcus, MPH, CPT, USA
MURGA, Ricardo, MPH, CDR, USPHS
RICHARDS, Erin, MPH, CPT, MS, USA
REYNOLDS, Mark, MTM&H
SOTO, Giselle, MPH
STUBBS, Jeremiah, MPH, LTC, MC, USA
TABAKOVA, Anca, MPH
TENEZA, Brigilda, MPH, MAJ, MC, USA
WARD, Claudine, MPH, MAJ, MC, USAF
WILES, Devin, MTM&H, CPT, MC, USA

2010

BACON, Bryan, MPH, MAJ, MC, USA
BAUTISTA, Marco Tejeda, MPH, MS
BERRY, Linda, MD
BRUNELL, Marla, MPH, MAJ, VC, US
CADUA, Edgar, MPH, MAJ, BSC, USAF
CATHLIN, Hubert, MPH, CDR, USPHS
CHEE, Chan, MD
CLARK II, Max, MPH, LT, MC, USN
CRON, Kevin, MPH, CPT, MC, USA
DEUSSING, Eric, MPH, LCDR, MC, USN
DUCKER, Robin, MPH, Capt, USAF, BSC
GILLIES II, Duncan, MPH, MAJ, MC, USA
GREGG II, Marion, MPH, LCDR, MC, USN
HUNTER, Kari, MPH, Capt, USAF, BSC
HARMAN JR., Jefferson, MPH, Col, MC, USAF
HARPER FARGUS, Jamie, MPH
ISIDEAN DAKDOUK, Sandra
JOHNSON, Mark, MMT&H, LT, MC, USN
MCCUTCHAN KUESTERS, Phoebe
LAROCHELLE, Jeffrey, MPH, MAJ, MC, USAF
LEE, Dara, MPH, CPT, MC, USA
MALLORY, Renee, MPH, CPT, MC, USA
MEYERS, Bryce, MPH, CPT, MC, USA
MILLEGAN, Jeffrey, MPH, LCDR, MC, USN
HINCHEY, Sherri, MPH, CPT, USA
POLAK, Suzanne, MPH, PhD
ROBERTS, Anne, MPH, LCDR, MC, USN
ROYAL, Joseph, MPH, CPT, VC, USA
SCHWARTZ, Jenna, MPH, CPT, MC, USA
SCHWARZ, Jessica, MPH, LT, USPHS
SEGUIN, Peter, MPH, LT, MC, USN
SIKORSKI, Cynthia, MPH, CDR, MC, USN
STANLEY, Michael, MPH, LTC, MC, USA
STEINER, Shane, MPH, MAJ, MC, FS, USAF
STEVENS JR., Michael, PhD, LCDR, MSC, USN
TOVAR, Jeffree, MPH, LCDR, MC, Peruvian Navy
TZENG, Jeff, MPH, CPT, MC, USA
VERLO, April, MSPH, CPT, MS, USA
YEW, Kenneth, MPH, CAPT, MC, USN

2011

ADAMS, Shannon, MPH, LT, USN
BECKETT, Charmagne, MPH, CDR, USN
BELILL, Kathryn, MPH, MAJ, USA

BOUCHER, Rebecca, MPH, MAJ, USA
CASTLE, Valerie, MPH, Maj, USAF
COSTELLO, Amy, MPH, Maj, USAF
FEDERINKO, Susan, MPH, Maj, USAF
GRIMES, George, MPH, LT, USN
HAWLEY, Robert, MPH, MAJ, USA
HAYS, Russell, MPH, CDR, USN
HESSE, Elisabeth, MTM&H, CPT, USA
HU, Lianne, MPH
HURD, Edward, MPH, LCDR, USN
JOLIVET, Rima, DrPH
LYNCH, Victoria, MPH, Capt, USAF
MANCUSO, James, DrPH, LTC, USA
MIRZA, Raul, MPH, CPT, USA
NEYRA, Joan, MPH, Peru Navy
ORAVEC, Geoffrey, MPH, Capt, USAF
PAOLINO, Kristopher, MTM&H, CPT, USA
SHERWOOD, Jeffrey, MTM&H, CPT, USA
VEGA, Jaime, MPH, LT, USN
WESTBROOK, Chris, MPH, CDR, USN

2012

BARRIENTOS, Raul, MPH, CDR, USN
BAUMGARTNER, Jason, MPH, LT, USN
BROWN, Carlis, MSPH, LT, USN
BURRIS, Gary, MHAP, ENS, USN
BYARS, Lynn, MPH, LT, USN
CHARBONNEAU, Vicki, MPH, Capt, USAF
CHIU, Alden, MPH, LT, USN
DE LA MOTTE, Sarah, MPH
DYER, Ricardo, MHAP, CPT, USA
ELLIOTT, Linda, MHAP, ENS, USN
FLEMING, Michael, MHAP, Capt, USAF
FREE, Ross, MPH, Capt, USAF
GREIFENSTEIN, Michael, MSPH, CPT, USA
GUTIERREZ, Romiro, MPH, CDR, USN
ILCUS, Lidia, MPH, LtCol, USAF
JANKOSKY, Sharon, MHAP
KELLY, Brenna, LT, USN
KERSGARD, Colleen, MPH, Maj, USAF
LARRU, Manuel, MPH, LT, Peru Navy
LEE, Cecilia, DrPH, MPH, RN
LESTER, Nancy, MPH, Maj, USAF
MAGEE, Charles, MPH, CPT, USA
MILLER, David, MPH, Maj, USAF
MONTGOMERY, Ralph, MHAP, ENS, USN
MORGANTI, Katherine, MPH, LtCol, USAF
MUNAYCO, Cesar, MPH, MD
PARKER, Alexandra, MPH, Capt, USAF
PREYER, Jennifer, MHAP, Capt, USAF
SMALLEY, Robert, MHAP, Capt, USAF
STRATING, Simon, MSPH, CPT, USA
VIADO, Hildehardo, MSPH, CPT, USA

2013

ALTSTATT, Carol, MHAP
ANGKASEKWINAI, Nasikarn, MD, MTM&H
BERNHARD, Jason, MPH, LCDR, MC, USN
BIGLEY, Daniel MPH, LCDR, MC, USA
BLIER, Serge, MPH, MAJ, CF
BRADLEY, Monica, MSPH, Capt, Canadian Forces
BROWN, Sarah, MHAP, LT, MSC, USN
CAMACHO, Angel, MHAP, LTJG, MSC, USN
CANELO, Carlos, MD, MPH
COUCH, Walter, MSPH, MAJ, MS, USA
DECASTRO, Arthur, MHAP, LTJG, MSC, USN
DEMBELE, Korami, MSPH, CAPT, CF
DISEATI, Lori, MPH, Maj, MC, USAF
D'ONOFRIO, Michael, MPH, CPT, MC, USA
EDMONSON, Kezia, MHAP, LTJG, MSC, USN
EPHRON, Paul, MPH, CAPT, MC, USN
FERGUSON, Ebonee, MHAP
HERNANDEZ, Inna, MHAP, Capt, MSC, USAF
HUBBARD, Katherine, MPH, LCDR, USPHS
HUSS, Frederick, MHAP, LCDR, MC, USN
JOHNSON, Lucas, MTM&H, LT, MC, USN
JOHNSON-KANAPATHY, Erin, MSPH, CPT, MSC, USA
KRANTZ, Jason, MSPH, MAJ, MS, USA
MARTIN, Nicholas, PhD EHS, LCDR, MSC, USN
MELANCON, Francois, MPH, MAJ, CF
MILES, John, MPH, Maj, MC, USAF
MONAHAN, Patrick, MPH, Col, MC, USAF MUELLER, Scott, MSPH, CPT, MSC, USA
MUNDACA, Carmen, DrPH
OFFENBACHER-LOONEY, Monica, MPH, MAJ, AN, USA
OTTO, Mark, MSPH, LT, MSC, USN
RAY, Papiya, MPH, LT, MC, USN
RICKARDS, Gretchen, MPH, MAJ, MC, USA
RIISE, Scott, MPH, Col, MC, USAF
SALAAM-BLYTHER, Tiaji, MHAP
SERVIES, Tammy, MPH, LCDR, MC, USN
ST. CLAIR, Kristina, MTM&H, LCDR, MC, USN
TAYLOR, Timothy, MPH, LT, USPHS
TICE, Beau, MHAP, LTJG, MSC, USN
VESS, Joshua, MPH, Maj, DC, USAF
VOSS, Jameson, MPH, Capt, MC, USAF
WASHIGNTON, William, MPH, MAJ, MC, USA
WEBBER, Bryant, MPH, Capt, MC, USAF
WILSON, Theodore, MSPH, MAJ, MSC, USA

2014

ABDUS-SALAAM, Raushan, MSPH, CPT, USA

ANDERSON, Calvin, MHAP, Maj, USAF
BARNES, Kisten, MPH, LCDR, FM
BLACKMER, Shannon, MPH, LCDR, USN
BREWSTER, Rachel, MPH, CPT, USA
BUI, Han, MPH, CDR, USN
CLAASSEN, Johnathan, MPH, CPT, USA
DAR, David, MPH, LT, USPHS
DEES, Jessica, MPH, Maj, USAF
DO, Tai, MPH, LCDR, USN
DUHANEY, Taneika, MHAP, LTJG, USN
DUONG, An, MPH, Lt Col, USAF
EICKMEYER, William, MSPH, LT, USN
FISKE, Lauren, MPH, LCDR, USN
HEGGE, Sara, MPH, CPT, USA
HOUT, Joseph, PhD, CPT, USA
JACKSON, Ashley, MTM&H, LCDR, USN
JUAREZ, Theodore, PhD, LCDR, USN
LACANILAO, Anna, MHAP, LT, USN
LANGTON, Richard, MPH, LCDR, USN
MAXWELL, Branden, MPH, CPT, USA
MCBEE, Elexis, MPH, LCDR, USN
MILES, Matthew, MHAP, LTJG, USN
MURR, Christopher, MPH, LTJG, USN
NELSON, Cameron, MPH, LCDR, USN
O'NEILL, Ryan, MHAP, LT, USN
PAOLINO, MPH, Nathalie, CPT, USA
PAGE, Mark, MHAP, CMDR, FM
PARSELL, Christopher, MHAP, LTJG, USN
PETERSON, Jasmine, MPH, MAJ, USA
PETTEBONE, Merrick, MSPH, LT, USN
PHAM, Anh, MPH, Lt Col, USAF
RAPP-SANTOS, Kamala, MPH, CPT, USA
REYES, Merson, MHAP, LTJG, USN
Richmond, Luke, MHAP, LTJG, USN
SANCHEZ, Marlene, MPH, CDR, USN
SLADE, Shane, MHAP, Capt, USAF
SMALLMAN, Darlene, MPH, Col, USAF
VON THUN, Annette, MTM&H, CAPT, USN
WILLOUGHBY, Neville, MHAP, LTJG, USN
WISNER, Grant, MHAP, Capt, USAF

2015

ANDREWS, Mary, MPH, LT, USN
BACSA, Christine, MPH, CPT, USA
BALLARD, Timothy, MPH, Maj, USAF
BERGAN, Timothy, MPH, LCDR, USN
BOCIAN, Margaret, MHAP, LT, USN
BROWN, Sterling, MSPH, CPT, USA
BYTNER, Julie, SGT
CAWLFIELD, Alicia, MPH, CPT, USA
CHU, Kasi, MPH, Maj, USAF
DEYOUNG, Wade, MSPH, CPT, USA
DIFFENDERFER, Jeffrey, MPH, MAJ, USA
DOWNS, John, MPH, MAJ, USA
FISHER, Andrew, MPH, Capt, USAF
FLETCHER, Heather, MPH, LCDR, USN
FRANKLIN, Kelly, MPH, Capt, USAF
GEHLING, Alicia, MPH, CPT, USA
GRIFFAY, Anthony, MPH, CAPT, USN
HAMEED, Jessica, MPH, LCDR, USN
HEININGER, Robert, MPH, CPT, USA
JACKSON, Jeremy, MHAP, LTJG, USN
JOAN, Neyra, DrPH, Civ
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RUMERY, Zachary, MHAP, Capt, USAF
SELLS, Samuel, MHAP, Capt, USAF
STEPHANIE, Morrison, DrPH, Civ
SULPIZIO, Hadley, MPH, LT, USN
THEODORE, Juarez, PhD, LCDR, USN
UNISZKIEWICZ, Robert, MPH, LCDR, USN
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(2015 Continued)
WILMOSKI, Conrad, MHAP, MAJ, USA
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NESTOR, Jennifer Leigh, MHAP, LT, MSC, USN
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PEARCE, Teresa Diana, MPH, MAJ, MC, USA
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2018

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