

**The LSU School of Veterinary Medicine (SVM) and the LSU School of Public Health (SPH)
Combined DVM/MPH Degree Program**

Introduction.

Make an impact as a veterinarian by improving the public's health and embarking on an exciting and meaningful career path with the new LSU 4-year DVM/MPH (Master of Public Health) Dual Degree Program. The new program integrates curricula in the LSU School of Veterinary Medicine and the LSU School of Public Health to prepare veterinary students as excellent veterinary clinicians and public health officers who can improve public health through application of knowledge and skills from the five public health disciplines: (1) Behavioral and Community Health Sciences (BCHS); (2) Biostatistics (BIOS); (3) Environmental and Occupational Health Sciences (ENHS); (4) Epidemiology (EPID); and (5) Health Policy and Systems Management (HPSM).

4-Year DVM/MPH Program students at LSU enjoy dynamic coursework, diverse field placements, and outstanding faculty from across the Health Sciences Center—providing them with advanced foundations in the disciplines of clinical veterinary medicine and public health—and allowing them to pursue individual interests while they develop critical skill sets for healthcare in the 21st century. The DVM/MPH program provides students with the analytical tools to define, evaluate, and solve emerging health and health care problems.

Mission.

The mission of the DVM/MPH program combines the missions of the LSU SVM;

“The LSU School of Veterinary Medicine is a dynamic community dedicated to saving and changing lives and finding cures through outstanding clinical and community service, ground-breaking scholarly research and educational excellence.”

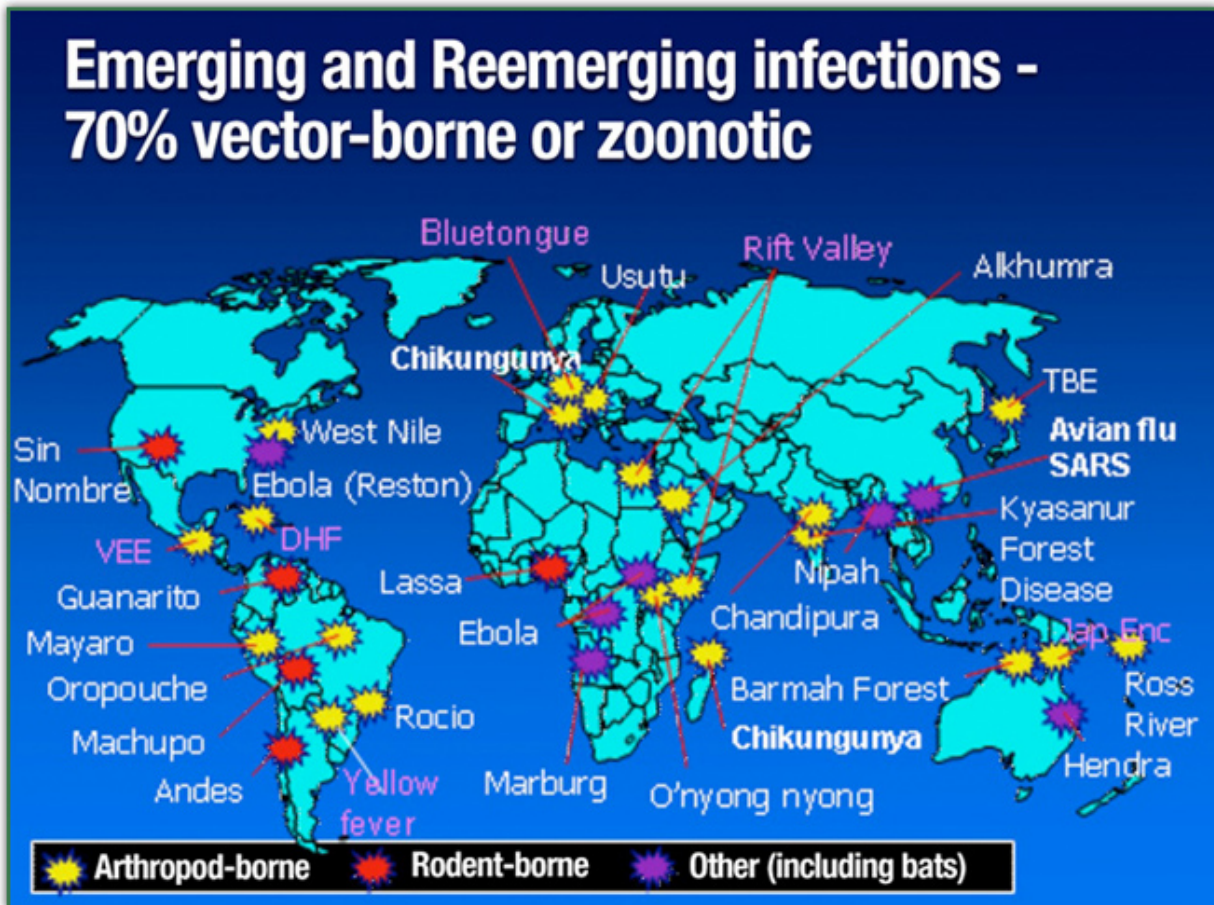
and the LSU SPH;

“The mission of the LSUHSC School of Public Health is to advance the public’s health and well-being through education, research, and service with a focus on issues affecting Louisiana.”

and adheres to and supports the mission of [One Health](#) as espoused by the United States Centers for Disease Control and Prevention (CDC);

“Recognizing that human health (including mental health via the human-animal bond phenomenon), animal health, and ecosystem health are inextricably linked, One Health seeks to promote, improve, and defend the health and well-being of all species by enhancing cooperation and collaboration between physicians, veterinarians, public health officers, and other scientific health and environmental professionals by promoting strengths in leadership and management to achieve these goals.”

Today, most (> 70%) emerging and re-emerging infectious diseases are either arthropod vector-borne or zoonotic, and often both, such as West Nile Virus Neuroinvasive Disease (Source: CDC).



Add Zika Virus Disease to this map as an arthropod (mosquito)-borne re-emerging infectious disease with a zoonotic origin in rhesus monkeys in Uganda in the late 1940s (Source: CDC).

Curriculum.

The curriculum of the LSU Combined DVM/MPH Degree Program will combine the full complement of all coursework required for the DVM degree and all coursework required for the MPH degree including all required core and concentration-specific courses in public health.

In keeping with the One Health Mission, the concentration-specific courses in public health will focus on the environmental and occupational health sciences and will include graduate courses in environmental health, occupational health, human health risk assessment, air quality, water quality, and medical toxicology.

The MPH in Environmental and Occupational Health Sciences (ENHS) Concentration

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Professor and Academic Director

LSU DVM/MPH Program

The Master of Public Health (MPH) program in Environmental and Occupational Health Sciences (ENHS) is designed to provide students interested in careers in health risk assessment, regulatory toxicology, occupational safety and health, and/or industrial hygiene with a solid academic background.

Required courses will include:

PUBH 6600 Culminating Experience 3

- BIOS 6100 - BIOSTATISTICAL METHODS I [3 Credits]
- EPID 6210 - PRINCIPLES OF EPIDEMIOLOGY [3 Credits]
- ENHS 6238 - PRINCIPLES OF ENVIRONMENTAL HEALTH [3 Credits]
- BCHS 6212 - BEHAVIORAL SCIENCE THEORIES IN PUBLIC HEALTH [3 Credits]
- HPSM 6268 - HEALTH SERVICES ADMINISTRATION AND MANAGEMENT [3 Credits]

To be taken in summers

- ENHS 6239 - PRINCIPLES OF OCCUPATIONAL HEALTH [3 Credits]
- ENHS 6241 - MEDICAL TOXICOLOGY [3 Credits]
- ENHS 6243 - AIR QUALITY, AIR POLLUTION AND DISPERSION MODELING [3 Credits]
- ENHS 6245 - HEALTH RISK ASSESSMENT AND MANAGEMENT [3 Credits]
- ENHS 6246 – WATER QUALITY [3 Credits]

The ENHS Concentration courses will be offered “Web-based”: All “Web-based” Curriculum Support Services Provided by LSU SPH Information Technology (IT) to include:

- (1) Moodle links will provide all lecture slides, handouts, proctored pretests-post-tests and/or quizzes, and examinations.
 - (2) Mediasite links will provide streaming videos of all class sessions for either real-time synchronous or any-time asynchronous viewing of all class sessions.
 - (3) Adobe Connect links will allow students on offsite campuses or rotations to enter real-time classes in order to participate in class presentations and/or discussions.
- PUBH 6800 – PRACTICE EXPERIENCE [3 Credits]
The student will be assigned to a Baton Rouge-based population-directed-health agency, e.g., LDH, OPH, DEQ, LDA, etc. These positions are typically unpaid, but may also often be paid depending on State and Federal Grant subsidies for graduate student workers, or for governmentally-funded projects.
 - PUBH 6600 - CULMINATING EXPERIENCE [3 Credits]
In the Culminating Experience, students will synthesize and integrate knowledge acquired in coursework and other learning experiences and to apply theory and principles in case studies that approximate an aspect of public health. Prerequisite: BIOS 6100 or 6200; EPID 6210; ENHS 6238; BCBS 6212; HPSM 6268.

Course Equivalencies.

Like medical students who enter the 4-Year LSU MD/MPH Combined Degree Program, veterinary medical students take several courses in molecular biology and immunology, anatomy and physiology, population sciences, ethics, and practice management. As a result, veterinary medicine students enrolled in the DVM/MPH Program will receive a total of 9 credit hours leading to the MPH degree and will not be required to take additional courses in the biological basis of health and healthcare ethics. The DVM/MPH program will require 37 hours of course work in public health in order to satisfy the 45-credit hour accreditation requirement for the MPH degree. As noted, 11 hours will be contributed by

LSU DVM/MPH Program

the DVM curriculum and 37 hours will be contributed by the public health curriculum for a total of 45 credit hours.

A total of 9 graduate credit hours will be awarded toward the DVM/MPH combined degree for the following coursework taken by veterinary medicine students.

SPH Number	Title	Credits	SVM Number	Title	Credits
PUBH 6150	Foundations and Ethics of Public Health	1	VMED 5366	Population Medicine	2.50
			5370	Ethics and Jurisprudence	1.00
PUBH 6160	Public Health Program Development	1	VMED 5253	Epidemiology and Public Health	3.00
			5371	Business Management	1.00
PUBH 6216	Biological Basis of Health (non-health professionals only)	3	VMED 5111	Veterinary Physiology II	3.00
ENHS XXXX	Electives	4	5112	Veterinary Physiology III	2.50
			5123	Basic and Applied Anatomy I	3.50
			5124	Basic and Applied Anatomy II	3.00
			5125	Basic and Applied Anatomy III	4.00
			5126	Cell Biology and Histology	3.00

DVM/MPH Dual Degree Program

The objectives of the proposed DVM/MPH dual-degree program are to provide students with the knowledge and skills necessary to promote health, prevent disease, and enhance the delivery of evidence-based health and public health services in the community. Upon completion of the DVM/MPH dual-degree program, graduates will demonstrate knowledge of the breadth of each field and their interface, as well as have ability to incorporate interdisciplinary skills in public health and health-related settings.

DVM/MPH dual-degree students will satisfy the requirements for **176.5 – 184.5 DVM credit hours** and a minimum of **37 MPH credit hours (with 9 hours of transfer credits)**.

Required Core for DVM/MPH

BIOS 6100	Biostatistical Methods I	4
EPID 6210	Principles of Epidemiology	3
HPSM 6268	Health Services Administration and Management	3
BCHS 6212	Behavioral Science Theories in Public Health Practice	3
ENHS 6238	Principles of Environmental Health	3
PUBH 6800	Practice Experience	3
PUBH 6600	Culminating Experience	3
	TOTAL	22

Environmental and Occupational Health Sciences

ENHS 6239	Principles of Occupational Health	3
ENHS 6241	Medical Toxicology	3
ENHS 6243	Air Quality	3
ENHS 6245	Health Risk Assessment and Management	3
ENHS 6246	Water Quality Management	3
	TOTAL	15