

Infectious Diseases and Zoonoses Core Competencies Course Alignment Matrix

MPH Emphasis Area: Infectious Diseases and Zoonoses	Select 2 or 3 courses – 6-7 hrs												Select 1 or 2 courses – 3-6 hrs				Select 1 or 2 courses – 3-6 hrs												Select 1 course – 3 hrs																				
	ASI 540	BIOL 530	BIOL 545	BIOL 546	BIOL 604	BIOL 675	BIOL 687	BIOL 730	DMP 712	DMP 718	DMP 722	DMP 860	BIOL 670	BIOL 671	DMP 705	DMP 850	BIOL 529	DMP 710	DMP 770	DMP 801	DMP 806	DMP 816	DMP 844	DMP 888	ENTOM 849	FDSCI 690	FDSCI 730	FDSCI 731	GEOG 508	GEOG 608	DMP 753	DMP 830	DMP 854	DMP 855	DMP 871	DMP 954	STAT 704	STAT 705	STAT 716	STAT 717	STAT 720	STAT 730	DMP 815	MC 750	MC 760				
P=Primary Course R=Reinforcing Course																																																	
1. Pathogens and pathogenic mechanisms: Understand and be able to describe the ecology and modes of disease causation of infectious agents such as bacteria, viruses, parasites, and fungi.	P	P	P	P	P	P	P	P	P	P	P	P																																					
2. Host response to pathogens and immunology: Describe the current understanding of host immune response to infection and understand the role of vaccination in infectious disease control.													P	R	P	P																																	
3. Environmental and ecological influences: Understand the influence of space/geography, insect vectors, toxic plants and other toxin sources, as well as infectious agents on infectious disease and food safety.																	P	P	P	P	P	P	P	P	P	P	P	P	P	P																			
4. Disease surveillance and quantitative methods: Understand how disease events and risk factors for disease are quantified and compared.																																P	P	P	P	P	P	P	P	P	P	P							
5. Effective communication: Develop and demonstrate effective strategies to communicate public health/infectious disease issues to a variety of audiences.																																												P	P	P			

Key to Course Titles

Infectious Diseases and Zoonoses Course List					
Course #	Course Title	Course #	Course Title	Course #	Course Title
ASI 540	Principles of Animal Disease Control (3 hrs)	DMP 722	Veterinary Virology (3 hrs) (DVM stds)	DMP 954	Advanced Epidemiology (3 hrs)
BIOL 529	Fundamentals of Ecology (3 hrs)	DMP 753	Veterinary Public Health (2 hrs) (DVM stds)	ENTOM 849	Biology of Disease Vectors (3 hrs)
BIOL 530	Pathogenic Microbiology (3 hrs)	DMP 770	Fundamental Concepts in Emerging Pathogenic Disease (3 hrs) (intersession)	FDSCI 690	Principles of HACCP (2 hrs) (online)
BIOL 545	Human Parasitology(3 hrs)	DMP 801	Toxicology (3 hrs)	FDSCI 730	Overview of Food Safety and Security (2 hrs)
BIOL 546	Human Parasitology Laboratory (1 hrs)	DMP 806	Environmental Toxicology (2 hrs)	FDSCI 731	Food Protection and Defense (2 hrs) (online)
BIOL 604	Biology of Fungi (3 hrs)	DMP 815	Multidisc Thought and Presentation (3 hrs)	GEOG 508	Geographic Information Systems I (4 hrs)
BIOL 670	Immunology (4 hrs)	DMP 816	Trade & Agricultural Health (2 hrs) (online)	GEOG 608	Geog Info Sys II (3 hrs) (prereq GEOG 508)
BIOL 671	Immunology Laboratory (2 hrs)	DMP 830	Quantitative Analysis (3 hrs)	MC 750	Strategic Health Comm (alt years) (3 hrs)
BIOL 675	Genetics of Microorganisms (3 hrs)	DMP 844	Global Health Issues (3 hrs) (online)	MC 760	Communication and Risk (3 hrs) (alt)
BIOL 687	Microbial Ecology (3 hrs)	DMP 850	Domestic Animal Immunology (3 hrs)	STAT 704	Analysis of Variance (2 hrs) (discontinued F2014)
BIOL 730	General Virology (3 hrs)	DMP 854	Intermediate Epidemiology (3 hrs)	STAT 705	Regression & Analysis of Variance (3 hrs)
DMP 705	Prin of Vet Immunology (3 hrs) (DVM stds)	DMP 855	Disease Detection, Surveillance and Risk Assessment (3 hrs)	STAT 716	Non-parametric Statistics (3 hrs)
DMP 710	Introduction to One Health (2 hrs) (online)	DMP 860	Pathogenic Mechanisms (3 hrs) (alt years)	STAT 717	Categorical Data Analysis (3 hrs)
DMP 712	Vet Bacteriology & Mycology (3 hrs) (lec)	DMP 871	Molecular Diag of Infect Diseases (3 hrs)	STAT 720	Design of Experiments (3 hrs)
DMP 718	Veterinary Parasitology (4 hrs) (DVM stds)	DMP 888	Global, Coop & the Food Trade (1 hrs) (online)	STAT 730	Multivariate Statistics Methods (3 hrs)