



GLOBAL DISEASE BIOLOGY UNDERGRADUATE MAJOR

DEPARTMENT OF PLANT PATHOLOGY • COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES
UNIVERSITY OF CALIFORNIA, DAVIS

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🏠 150 Hutchinson Hall



Depth Subject Matter: 44-49 Units

<u>Course</u>	<u>Title</u>	<u>Prerequisites</u>	<u>Quarter(s) Offered</u>	<u>Units</u>
Global Disease Biology Core				
GDB 90	Introduction to Global Disease Biology	--	F, S	1
SAS 13	Disease & Society	--	F, W	3
Chemistry				
CHE 2A	General Chemistry	Chemistry Placement score of 24+ or CHE 1V with C- or higher	F, W, Su	5
CHE 2B	General Chemistry	CHE 2A/2AH with C- or higher	W, S, Su	5
CHE 2C	General Chemistry	CHE 2B/2BH with C- or higher	F, S, Su	5
Organic Chemistry (choose one series)				
CHE 8A	Organic Chemistry: Brief Course	CHE 2B/2BH with C- or higher	F, S, Su	2
CHE 8B	Organic Chemistry: Brief Course	CHE 8A/118A/128A	F, W, Su	4
OR				
CHE 118A	Organic Chemistry for Health & Life Sciences	CHE 2C/2CH with C- or higher	F, W, Su	4
CHE 118B	Organic Chemistry for Health & Life Sciences	CHE 118A/128A	W, S, Su	4
Biological Sciences				
BIS 2A	Introduction to Biology: Essentials of Life on Earth	CHE 2A or equivalent recommended	F, W, S, Su	5
BIS 2B	Introduction to Biology: Principles of Ecology & Evolution	--	F, W, S, Su	5
BIS 2C	Introduction to Biology: Biodiversity & the Tree of Life	BIS 2B with C- or higher	F, W, S, Su	5
Physics				
PHY 7A	General Physics	MAT 16B/17B/21B (can be concurrent)	F, W, S, Su	4
PHY 7B	General Physics	PHY 7A	F, W, S, Su	4
Mathematics				
MAT 17A	Calculus for Biology and Medicine	Two years of high school algebra, plane geometry, plane trigonometry, and analytical geometry; Math Placement score of 30+	F, W, S, Su	4
MAT 17B	Calculus for Biology and Medicine	MAT 16A/17A/21A/21AH with C- or higher	F, W, S, Su	4
MAT 17C	Calculus for Biology and Medicine	MAT 17B with C- or higher	F, W, S, Su	4
Statistics (choose one)				
STA 13	Elementary Statistics	Two years of high school algebra or Mathematics D	F, W, S, Su	4
STA 100	Applied Statistics for Biological Sciences	MAT 16B/17B/21B with a C- or higher	F, W, S, Su	4
PLS 120	Applied Statistics in Agricultural Sciences	Upper division standing	F, S	4

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Global Disease Biology Core				
PMI 129Y	One Health: Human, Animal & Environment Interfaces	Good academic standing	F, W	3
VME 158	Infectious Disease in Ecology & Conservation	BIS 2A-C; EVE 100 recommended	W, S	3
GDB 101	Epidemiology	BIS 2A-C; SAS 13, STA 13 or STA 100 or PLS 120	F, W	4
GDB 102	Disease Intervention & Policy	BIS 2A-C; SAS 13; PMI 129Y; VME 158; GDB 101	S	4
Upper Division Biology				
BIS 101	Genes and Gene Expression	BIS 2A-B with C- or better; CHE 8A/118A; STA 13/100	F, W, S, Su	4
BIS 105	Biomolecules and Metabolism	BIS 2A; CHE 8B/118B	F, W, S, Su	3
OR				
BIS 102 and BIS 103	Structure & Function of Biomolecules and Bioenergetics & Metabolism	BIS 2A; CHE 8B/118B and BIS 102	F, W, S, Su	3 and 3
EVE 100	Introduction to Evolution	BIS 2A-C; MAT 16/17/21A-B; STA 13/100 recommended	F, W, S, Su	4
MIC 102	Introduction to Microbiology	BIS 2A; CHE 2B (can be concurrent)	F, W, S, Su	3
MIC 103L	Introduction to Microbiology Lab	MIC 102 with C- or better, CHE 2B	F, W, S, Su	2
Pathogen/Disease Courses (choose two)				
PLP 100	Biology of Plant Pathogens	BIS 2A-C	W	3
PLP 120	Introduction to Plant Pathology	BIS 2C; or consent of instructor; MIC/MMG 102 recommended	S	4
PLP 130	Fungal Biology & Disease	BIS 2A-C (can be concurrent)	S	3
PLP/PLB 148	Introductory Mycology	BIS 2A-C	F	4
PMI 127	Medical Bacteria & Fungi	Any MIC course with lab, Immunology recommended	S	3
ENT 153	Medical Entomology	BIS 2A-B	W	3
ENT 156	Biology of Parasitism	BIS 2A	S	3
GDB 103	Microbiome of People, Animals, & Plants	BIS 2A-C	W, S	3
MMG 162	General Virology	BIS 101 with C- or better; BIS 102 or 105 recommended	W	3
OR				
PMI 128	Biology of Animal Viruses	BIS 102	S	3
OR				
MMI 177	Human Virology	BIS 101 or BIS 102 or BIS 103 or BIS 104 or BIS 105	W	3
Practicum Proposal Class				
GDB 187	Global Disease Biology Seminar	GDB 90; SAS 13	F, W, S	3
Senior Practicum				
GDB 189 (may be taken twice)	Global Disease Biology Senior Research	GDB 90; SAS 13; GDB 187	F, W, S, Su	3
GDB 189D	Global Disease Biology Research Discussion	GDB 90; SAS 13; GDB 187; GDB 189	F, W, S, Su	1

Restricted Electives (Minimum upper division 25 units): Focused specialty as outlined in the student's proposal (from GDB 187) with **approval** of an advisor; upper division units may be chosen from courses offered by various departments.

Course offerings are subject to change at any time. Please check with your advisor or email gdb-advise@ucdavis.edu for the most up-to-date information. Updated 05/21/2024