

BIOLOGY (BIOLOGY OF GLOBAL HEALTH), B.S.

Human health is intricately linked to economic development, ecological sustainability, and social inequalities. For these reasons, the Biology of Global Health program is designed for students interested in engaging human and environmental health issues on a global scale from developing to industrialized nations. It is appropriate for students who are considering diverse careers in biology from medicine to environmental conservation and who are interested in finding solutions to the biological and ecological challenges influencing human health. Graduates of the program will be equipped with fundamental scientific skills and knowledge, drawn from the breadth of biological disciplines, that will allow them to become leaders in healthcare fields at local, national, and international levels.

Admission to the Program

Students wishing to pursue the Bachelor of Science in Biology with a concentration in Biology of Global Health must have satisfied each of the requirements listed below to advance in the major and select a concentration. Further, the student must have completed a minimum of 24 credit hours in residence at Baylor, but no more than 60 hours in residence to declare the concentration in Biology of Global Health. Students can select the BGH concentration at the completion of each spring semester if they fulfill the requirements listed below for admission to the program. Students will begin in the BGH program the subsequent fall semester.

Admission to the Biology of Global Health program requires, at a minimum:

1. An overall GPA of 3.5 on a four-point scale.
2. A major GPA of 3.5 on a four-point scale.

Maintaining Status as a Biology of Global Health Student

Biology of Global Health students must maintain a minimum cumulative 3.0 GPA through their junior-level courses (including BIO 2306 Genetics - BIO 2106 Genetics Laboratory) and earn no grade lower than a C in any Biology course. Any student whose performance falls below the 3.0 minimum for two consecutive semesters or who earns less than a C grade in a biology course will be dismissed from the program.

Requirements for a Major in Biology (Biology of Global Health)

Code	Title	Hours
Thirty-five semester hours including the following: ¹		
Required Courses		
BIO 1305 & BIO 1105	Modern Concepts of Bioscience and Modern Concepts of Bioscience Laboratory	4
or BIO 1405	Investigations of Modern Biology Concepts I	
BIO 1306 & BIO 1106	Modern Concepts of Bioscience, continued and Modern Concepts of Bioscience Laboratory	4
or BIO 1406	Investigations of Modern Biology Concepts II	
BIO 2301	Biology of Global Health	3
BIO 2306 & BIO 2106	Genetics and Genetics Laboratory	4

BIO 3303 & BIO 3103	Ecology and Ecology Laboratory	4
BIO 4001	Achievement Test	0
BIO 4302 & BIO 4102	General Microbiology and General Microbiology Lab	4
Select three hours from each list:		
<i>Cell & Molecular Biology List</i>		
BIO 3342	Molecular Cell Biology	3
BIO 3350	Genomics and Bioinformatics	
BIO 4306 & BIO 4106	Molecular Genetics and Genomics and Molecular Genetics and Genomics Laboratory	
BIO 4308 & BIO 4108	Genes and Development and Genes and Development Laboratory	
<i>Ecology & Evolution List</i>		
BIO 3315	Introduction to Environmental Health	
BIO 3320	Climate Change Biology	
BIO 3366	Foundations of Evolutionary Biology	
BIO 4305	Aquatic Ecosystems	
BIO 4365	Topics in Evolution	
BIO 4386	Remote Sensing	
<i>Host & Disease List</i>		
BIO 3322	Human Physiology	
BIO 4301	Immunology	
BIO 4304	Medical Entomology	
BIO 4312	Viruses and Global Health	
BIO 4323	Parasitology	
BIO 4350	Pathogenic Microbiology	
BIO 4354	Neglected Tropical Diseases	
BIO 4431		
Three semester hours of 3000-4000 level BIO courses		3
Subtotal		35
Required Courses in Other Fields ²		
CHE 1301 & CHE 1101	Basic Principles of Modern Chemistry I and General Chemistry Laboratory I	4
CHE 1302 & CHE 1102	Basic Principles of Modern Chemistry II and General Chemistry Laboratory II	4
CHE 3331	Organic Chemistry I	3
CHE 3332	Organic Chemistry II	3
CHE 3238	Organic Chemistry Laboratory	2
MTH 1321	Calculus I	3
STA 2381	Introductory Statistical Methods	3
Select one of the following sequences:		8
PHY 1408 & PHY 1409	General Physics for Natural and Behavioral Sciences I and General Physics for Natural and Behavioral Sciences II	
PHY 1420 & PHY 1430	General Physics I and General Physics II	
PHY 1420 & PHY 1409	General Physics I and General Physics for Natural and Behavioral Sciences II	
Select at least one of the following:		3
ANT 4330	Epidemiology	

ANT 4325	Medical Anthropology
ANT 4371	Evolutionary Medicine
ANT 4373	One Health: Connecting Global Health and Conservation Medicine
PUBH 3351	Epidemiology/Vital Statistics
PUBH 4340	Global Health
Total Hours	68

¹ A grade of "C" or better in BIO courses used in the major and a GPA of 2.0 or higher on all BIO courses.

² A grade of "C" or better in all courses required in other fields.