

Early Engagement Toward Lifetime Commitments: Developing Transformative Undergraduate Global Health Education Programs

Background

Historically, the predominant academic disciplines chosen by undergraduate students who intend to pursue training as health professionals have tended to be majors in the basic sciences: chemistry, biology, biochemistry, and other similarly lab science-based specializations.

Many of today's undergraduates want to explore the full range of their personal and professional interests in an academic context without falling behind in pre-requisite course work required for admission to medical and other health professional schools. Many also view their interests in the social sciences, politics, and economics as inextricably bound with their interests in serving society as health professionals. The increasingly expressed desire to spend at least some time during one's future career – if not entire career – abroad, especially in communities of need, leads universities to confront the need for a new type of training for such students.

New Curricular Strategies

- ◆ Interdisciplinary partnerships to expand and diversify course offerings
- ◆ Balance of upper division lab and social science course work
- ◆ Creation of both majors and minors for students who might desire substantial exposure to course work in international policy and socioeconomic factors affecting health and wellness, but who do not want to have a major outside the sciences
- ◆ Encourage students from a range of backgrounds, including non-pre-health professionals, to take courses

Curricular Comparison – Science vs. Interdisciplinary Global Health Major

Bold text indicates course recommended for medical school admission

Basic Science		Global Health		
REQUIRED COURSES				
Biology Major	Chemistry Major	Global Health Major		
Biology I	Chemistry I and II	Biology II		
Biology II	Calculus I	Chemistry I		
Molecular Biology	Calculus II	Microeconomics		
Genetics	Linear Algebra	Introduction to Global Health		
Biochemistry	Calculus III	Biological and Behavioral Basis of Disease		
General Chemistry I and II	Physics I	Case Studies in Global Health		
Organic Chemistry I and II	Physics II	Globalization: Issues and Controversies		
Calculus I	Physics III	Calculus I		
Physics I	Analytical Chemistry	Health Behavior Statistical Methods		
Physics II	Organic Chemistry I and II	Health Behavior Research Methods		
Statistics	Physical Chemistry	Directed Research		
Additional upper division biology courses serve as electives	Advanced Organic Chemistry	Electives from each of the following disciplines: <i>Health Promotion</i> <i>International Relations</i> <i>General Coursework</i>		
	Physical Chemistry	Theoretical Principles of Health Behavior	Managing New Global Challenges	Biology I
	Advanced Inorganic Chemistry	Culture, Lifestyle, & Health	International Organizations	Molecular Biology
	Advanced Laboratory Techniques	Cultural Competence in Medicine	Contemporary International Politics	Biochemistry
	Chemical Instrumentation	Maternal & Child Health	Globalization: Issues & Controversies	Organic Chemistry I and II
	Directed Research	Behavioral Medicine	Ethnicity and Nationalism in World Politics	Physics I and II
	Additional chemistry and science electives	Religion and Health	Politics of Global Environment	Global Health and Aging
		Sexually Transmitted Diseases	Rich and Poor States in the World Political Economy	The Politics of Human Differences: Diversity and Discrimination
		Gender and Minority Health Issues	Global Civil Society: Non-Governmental Organizations in World Politics	Politics of Resources and Development
		AIDS in Society	Citizenship and Migration in International Politics	Women in International Development
		Traditional Eastern Medicine and Modern Health	Issues and Theories in Global Society	International Development
				Third World Cities
				Racial and Ethnic Relations in Global Society
				Key Issues in Contemporary International Migration
				Development and Social Change in the Third World



“An education in global health has supplemented my understanding of disease pathologies and the effects of poverty on health, and has helped me spread awareness of these issues.”

- Undergraduate program graduate and current medical student

Conclusions

Students are eager for the opportunity to learn about health and wellness in a broader, global context, including the factors that lead to health disparities among global populations as a result of differences in resource availability, cultural behaviors and customs, religious practices, political situations, and economic development. Global Health programming at the undergraduate level allows more students who plan to become health professionals to gain knowledge of, and exposure to, the interplay of larger determinants of a given population's health. Such exposure makes students better prepared to continue to pursue education with an aim toward international health work, as well as informing interest in working for organizations such as: UNICEF, WHO, and the Pan-American Health Organization, among others. Broadening the view of our future physicians will only lead to better care around the world.

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