

Interdisciplinary Major Proposal: Hannah Sintek

Health Science and Policy

The disconnect between the science behind human health and the policy being implemented to improve it can be a major obstacle to productive and meaningful change. This major seeks to explore the various factors, both scientific and political, influencing human health and to bridge these fields in effective and politically viable ways. In order to do so, a working knowledge of both science and policy is necessary, a knowledge I seek to gain in my interdisciplinary major by taking classes in a variety of fields and associated with both parts.

I have divided the thirteen courses that compose my proposed major requirements into two sections and a capstone experience. I have titled the first section "Science", and the five classes contained within will help me to establish the sound biological knowledge essential to environmental and policy concerns alike.

Science:

BIOL 220: Zoology

BIOL 250: Genetics

BIOL 365: Ecology and Evolution

BIOL 340: Microbiology

or

BIOL 430: Immunology

BIOL 460: Evolution

Supporting Courses:

BIOL 150: Cell Biology

BIOL 210: Botany

CHEM 110: General Chemistry I: Chemical Structure and Properties

Zoology, Genetics and Ecology and Evolution are core courses for the biology major, denoting their significance in the basis of any higher-level concepts (Additionally, the other two Biology core classes are listed in my "supporting courses" section and will be completed as well). Either Microbiology or Immunology would provide a valuable introduction to the study of the link between microorganisms (viruses, bacteria, chemicals, etc.) and their impact on the health of other organisms and the ecosystem at large. Finally, Evolution is a high-level class examining natural change over time on a grand scale; in the field of health today, it is important to know how things are mutating and evolving (antibiotic-resistant bacteria, for example) and to attempt to predict the consequences of these changes.

The second section, which I have entitled "Policy", seeks to combine basic knowledge from several different disciplines. In order to effectively assess, make, or carry out any policy decision, it is important to understand the various components and effects of any governmental action.

Policy:

POLI 235: Public Policy

POLI 315: Environmental Policy and Management

POLI 260: Political Economy

ECON 380: Public Finance

SOCI 380: Medicine and Culture

or

SOCI 340: Food, Culture, and Nature

POLI 299: Independent Study: Research with Dr. Barth about the Cradle-to-Prison

Pipeline in Arkansas

Supporting courses:

MATH 215: Statistics

Public Policy examines both current health and other areas of policy while providing an introduction to the major conflicts in public decision making. Environmental Policy and Management takes a closer look at current environmental policies, including their effects on human health. Next, I have included three economics classes, of which I will take two, to give me a background in the economic issues stemming particularly from the public and health fields, where costs cannot always be measured in dollars. Additionally, because health depends so much on human actions, a class in sociology will provide additional insight to the many actors involved in policy making.

Finally, one of the most important parts of an interdisciplinary major is the final capstone, in which the sometimes conventionally disparate elements can be tied together in a final finished project for the benefit of the student, the advisors, and future career plans.

Capstone:

LBST 497: Independent Study: Senior Research

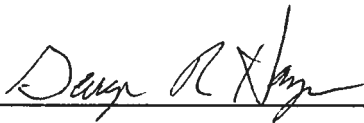
For my final capstone, I propose to create an independent study course concentrated on the research necessary to craft a policy proposal pertaining to an area of interest in the connection between health science and policy. Integrating published scientific research and viable policy steps, I will attempt to explore possible solutions and learn to adequately communicate scientific evidence and fact-based options to a variety of players in the policy arena, each with different concerns and areas of expertise. At the end of the project, I will present to a faculty panel to explain and defend my proposal as a feasible and well-researched set of solutions. The capstone grade will be based on my project and presentation in my independent study. The capstone grade will be determined by my interdisciplinary studies committee.

With this major combining policy and science into an interrelated package, I feel I will be well prepared to enter my chosen field. I plan to attend graduate school for public health, preferably in the Health Policy or Epidemiology concentration. Several schools offer joint Masters degrees with the Peace Corp, a program that would allow me

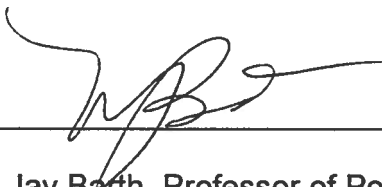
to integrate 27 months of Peace Corp service with my degree requirements. Other options are open in the pursuance of this degree as well: public service graduate studies; work in an aid organization, either domestically or internationally; a career in the public health education field or working for the CDC; perhaps even public health nursing.

Most importantly, I believe that this degree will allow me to pursue my passions in a logical and productive manner. Many people think of science and politics as two entirely separate arenas, without seeing how mutually dependent they truly are. By continuing to view these disciplines as the domains of two different groups of experts, we are impeding comprehensive analysis and stifling solutions that are necessary to create the innovative policies essential to furthering human health.

Interdisciplinary Major Committee:



Dr. George Harper, Professor of Biology, Advisor



Dr. Jay Barth, Professor of Politics