

## **RECOMMENDED PRE-HEALTH COURSES**

### **ANTH 71600 - Medical Anthropology**

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Health and disease viewed comparatively in terms of how societies perceive, explain, prevent, and treat illness.

*Hours 3 hrs, including conferences, Credits 3 cr  
All students must consult with the graduate adviser before registering for any course.*

### **ASIAN 23002 - Asian American Communities and Mental Health**

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#### **Hunter Core**

Individual and Society (Social Sciences) -I&S SS

#### **Pluralism and Diversity**

PD/B

Introduction to psychological experiences of Asian Americans, including historical, sociopolitical, and cultural influences that shape personality and mental health. Specific topics include stereotypes and racism, processes of acculturation and enculturation, ethnic identity development, interracial relationships, stressors and social support systems within Asian American communities, and culturally competent mental health treatment and service delivery.  
*3 hrs, 3 credits*

### **COMHE 20000 - Controversial Issues in Health and Health Care**

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Contemporary health controversies examined through the disciplines of community and public health and health care.

*prereq: none*

*3 hrs, 3 cr.*

### **COMHE 33000 - Principles of Epidemiology**

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Methods of study of disease; risk factors; distribution, causes, prevention, and control of selected diseases.

*prereq: Acceptance to the major, or permission of the instructor.*

*3 hrs, 3 cr.*

## **COMHE 40500 - Health Care Systems and Health Policy**

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Overview of U.S. health care system, official and voluntary agencies; introduction to administrative skills, especially those skills necessary for working in the health care field.

*prereq: Acceptance to the COMHE major or permission of the instructor.*

*3 hrs, 3 cr.*

## **COMHE 32800 - Public Health Biology**

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Introduction to population biology and ecological principles underlying public health and the relationship of biology to public health. Offers a basic understanding of the biological basis of core public health issues including infectious diseases, vaccines, genetic illnesses, neoplastic processes and environmental illnesses.

*prereq: acceptance to the COMHE major or permission of the instructor*

*3 hrs, 3 cr.*

## **COMHE 30600 - Social Disparities in Health**

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In depth examination of the social, cultural and political factors that influence and lead to health disparities and health inequalities. Course explores demographic trends in mortality and morbidity and the role of history, race, class, policy, and socioeconomic and cultural factors, and health literacy levels in the development and continuation of disparities in health. This course uses a social justice lens to understand health, health care and health disparities.

*prereq: acceptance to the COMHE major or permission of the instructor.*

*3 hrs, 3 cr.*

## **BIOL 12000 - Anatomy and Physiology I**

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Cell structure and function; histology; nervous, muscular and skeletal systems; integument.

Required for admission to the nursing program.

Not accepted for credit toward the biology major.

*prereq: CHEM 10000, 10100*

*coreq: CHEM 12000, 12100*

*7hrs (3hr Lecture, 1hr Recitation, 3hr Lab)*

*4.5 cr.*

*fall only*

## **BIOL 12200 - Anatomy and Physiology II**

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Structure and function of circulatory, digestive, excretory, endocrine and reproductive systems. Basic concepts of metabolism, embryology. Required for admission to the nursing program. Not accepted for credit toward the biology major.

*prereq: BIOL 12000 or equiv.*

*7hrs (3hr Lecture, 1hr Recitation, 3hr Lab)*

*4.5 cr.*

*spring only*

## **BIOL 30300 - Cell Biology**

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This Biology major capstone course builds upon what has been learned in molecular biology & genetics and biochemistry providing an integrated look at the molecular biology of the cell. Separated into 5 units, the lecture and laboratory components are coordinated. The course includes integrated components in the following eukaryotic cell biology areas through the following 5 units: 1. Introduction: Cell morphology and commonly used techniques for examining the cell. An introduction to cell proliferation, cell motility, and cell communication (comparing prokaryotic and eukaryotic systems). 2. Cell Cycle Regulation: Cell cycle regulation, cellular signal transduction, regulation of cell proliferation and cell growth, cell death mechanisms, and de-regulation of cell growth the process of tumorigenesis. 3. Membranes and Cytoskeleton: Membranes, cytoskeleton, and signaling, are including mechanisms for transport and cellular channels for intracellular and intercellular communication. Human biology and disease as it pertains to membrane biology. 4. Organelles: Intracellular organelles are examined in detail for their structures and functions. This includes, but is not limited to, mitochondrial function and energy production, protein degradation pathways and intracellular trafficking. 5. Cell Communication: Cellular differentiation, cell-cell communication, and an introduction to development.

*prereq: Advisor permission; BIOL 30000 or instructor permission*

*7 hrs 4.5 cr spring only*

## **BIOL 36000 - Cellular and Molecular Immunology**

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**GER**

3/B

Study of the immune system from a molecular perspective. Molecular genetics of antibody and T cell receptor diversity, hematopoiesis and lymphocyte development, humoral and cellular

immunity, histocompatibility.  
*prereq or coreq: BIOL 30000, perm instr.*  
*4 hrs (3 lec, 1 disc)*  
*3.5 cr.*  
*spring only*

## **BIOL 37600 - Endocrinology**

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**GER**

3/B

Cellular organization of the endocrine system; molecular mechanisms of hormone action; hormonal physiology of metabolism and reproduction; integration of endocrine responses by the central nervous system.

*prereq: BIOL 20200 or perm instr.*  
*3 hrs (lec) 3 cr.*  
*spring only*

## **BIOL 38000 - Molecular Neurobiology**

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**GER**

3/B

Molecular components and molecular mechanisms involved in the cell biology of neurons and glia, neuronal signaling, neuronal development, learning, memory and diseases of the nervous system.

*prereq: BIOL 30000 or perm instr.*  
*3 lec hrs 3 cr.*  
*fall only*

## **HED 20100 - Women and Health**

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**Pluralism and Diversity**

PD/C

An exploration of health issues affecting women, particularly as these issues relate to the socialization of women, reproductive and sexual health, and medical practices.

*cross-listed WGSP 25100*  
*3 hrs, 3 cr.*

## **ENGL 25039 - Narrative Medicine**

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### Hunter Core: Creative Expression

This course will offer an introduction to the field of Narrative Medicine. Material will include historical and contemporary case studies as well as contemporary humanistic writings by such writers as Oliver Sacks, Lucy Grealy, Audre Lorde, and others. We will examine stories that have been told and retold in different ways throughout history, such as *Frankenstein* and tales of epidemics. We will read critical and creative works by such authors as Rita Charon, Anatole Broyard, Arthur Frank, Aleksander Hemon and others, and we will explore the various means by which issues in healthcare, science and ethics can be addressed and developed in different narrative genres, including work of graphic novel, film and theater (for example, the 1984 documentary *Dax's Case: Who Should Decide?*, which raises the issue of whether a patient has the right to refuse treatments; Margaret Edson's 1999 play *Wit*, which concerns a middle-aged professor's ordeal with terminal cancer, and films about illness outbreaks.) Topics to be explored include: How do physicians and scientists narrate pain? What are the different ways in which we consider medical evidence? How does the way that a medical case is told shape our interpretation and ethical judgment? What is the responsibility of the scientist in society, and how might we expand and enrich the communication of scientific research to peers as well as the lay public? Students will have the opportunity to write about their own scientific and medical research projects where applicable. Course requirements: Discussion posts, one mid-term paper, a final paper and class presentation

*prereq: ENGL 12000*  
*3 hrs, 3 cr.*

## **NURS 34600 - Death and Dying**

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### **Pluralism and Diversity**

P/D B

Provides an overview of current theories, concepts, and practices associated with death, dying and end-of-life care.

*3 hrs, 3 cr.*

## **PHILO 25400 - Ethical Issues in Biology and Medical Care (W)**

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**GER**

3/B

Treats issues such as abortion, euthanasia, extraordinary means, confidentiality, human experimentation, genetic control and allocation of limited life-saving therapy.

*prereq: ENGL 12000 and one previous course in philosophy.*

*3 hrs, 3 cr.*

## **POLSC 28100 - Drugs, Politics and Public Policy (W)**

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**GER**

3/B

Examination of public policies addressing drug use and abuse in the United States and other countries with emphasis on political and cultural determinants, economic and market factors, constitutional implications and United States foreign policy.

*prereq: ENGL 12000*

*3 hrs, 3 cr.*

## **PSYCH 24200 - Health Psychology**

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**GER**

3/B

Psychological and behavioral factors related to physical illness and health promotion, including such areas as aging, stress and coping, pain, addiction and eating disorders.

Writing Intensive

*prereq: PSYCH 10000 and any other 3 cr PSYCH course*

*prereq or coreq: ENGL 12000*

*3 hrs, 3 cr.*

## **PSYCH 36200 - Psychological Determinants of Health Disparities**

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Current research, theory, and applications related to the psychological determinants of health disparities that are experienced as a function of population characteristics, including race/ethnicity, gender, age, socioeconomic status, and sexual orientation.

*prereq: PSYCH 24900 -or- 25000; PSYCH 24200. Open only to psychology majors.  
3 hrs, 3 cr.*

### **PSYCH 36600 - Interpersonal Relationships and Health**

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This course will familiarize students with current research, theory, and applications related to interpersonal processes and health, emphasizing emotional as well as physical health. It will broadly consider the literature in health psychology and relationship science and therefore maintains a biopsychosocial perspective of health and well-being.

*prereq: PSYCH 24200 (Health Psychology) or PSYCH 23000 (Social Psychology); PSYCH 24900 or 25000; Open only to psychology majors.  
3 hrs, 3 cr.*

### **PSYCH 38700 - Current Topics in Health Psychology**

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Contemporary knowledge and issues in the scholarly literature in a focused area of health psychology. Emphases on interdisciplinary approaches and critical thinking, including links to theoretical and empirical foundations of the field. Topics vary each term.

*prereq: PSYCH 24200; PSYCH 24900 -or- 25000; Open only to psychology majors  
3 hrs, 3 cr.*

### **SCI 30200 - Ethical Conduct in the Natural and Physical Sciences**

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**GER**

3/B

Case studies of ethical issues in scientific research and education, including fraud, misrepresentation and negligence in scientific reporting. Term paper required.

*prereq: 2 yrs lab science (BIOL 10000, 10200; CHEM 10200, 10300, 10400, 10500; PHYS 11000, 12000; or equiv.)*

*prereq or coreq: lab research experience in natural or physical sciences  
2 hrs, 2 cr.*

## **GEOG38311- Health Equity in the United States: Policies and Politics**

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This course will explore how to transform the current federal, state, and local regulatory and operational framework from one that focuses on “sick care” to one that keeps patients and their communities healthy. The emphasis will be on integrating the “social context,” i.e. social determinants of health into care delivery, and developing policies that blend public health, health care, and human services to address the whole patient. The course will also consider how best to align incentives for patients, payers (commercial and government), care providers, community-based organizations, and pharmaceutical companies. Case studies will examine vulnerable communities, including those who are homeless, involved in the criminal justice system, and undocumented immigrants.

## **SOC 30100 - Medical Sociology**

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**GER**

3/B

Social and cultural factors related to health. Organization of health care services, social structure of the hospital.

*prereq: SOC 10100*

*3 hrs, 3 cr.*

## **PHYS 42000 - Introduction to Biophysics**

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A comprehensive introduction to the interface between physics and biology and the application of the techniques of physics to understanding biological systems, focusing on developing an understanding of the thermodynamics of living systems, on the physical kinematics of macromolecules and other biological structures and on the theory of physical techniques that are used in the study of biological systems.

*prereq or coreq: PHYS 33000, PHYS 33600, BIOL 30000, CHEM 37600.*

*4 hrs, 4 cr.*