Sustainability Course Listing

Courses in RED are sustainability courses. Courses in BLUE are courses that include sustainability. Courses that we designate as including sustainability but do not meet STARS criteria are in GRAY.

Department of Anthropology

ANTH 101. Introduction to Cultural Anthropology. 3 Hours.
Cultures of world's peoples; ideas used to explain similarities and differences among human groups. Ethics and Civic Responsibility are significant components of this course. This course meets the Core Curriculum requirements for Area IV: Social and Behavioral Sciences.

ANTH 104. Introduction to Peace Studies. 3 Hours.
An overview of concepts and practices related to conflict, social justice, and peace. Students are introduced to theories, terms, analytical skills and tools in terms of peace building and conflict transformation.

ANTH 299. Contemporary Global Issues. 3 Hours.
This course explores anthropological perspectives, applications, and contributions to solving to contemporary world problems including: terrorism, warfare, genocide; global warming and sustainable development; global epidemic disease and new pandemics; torture and human rights abuses; global capitalism, sweatshops, and economic justice; poverty and hunger; illiteracy; child labor and child soldiers; and human population explosion.

ANTH 307 - Environmental Archaeology

3 Hours

Study of human interaction with the environment in the past through archaeology and related disciplines.

Prerequisites: ANTH 106

ANTH 351 - Anthropology of Human Rights

3 Hours

Examination of conceptual, political, and legal aspects of human rights from an anthropological perspective. Topics considered may include: state violence; the history of human rights claims; the opposition of cultural rights and human rights claim; human rights as a form of political discourse; human rights practices in select contemporary settings.

ANTH 366 - Urban Anthropology

3 Hours

Human life in cities from cross-cultural perspective; process of urbanization in ancient civilizations, colonial empires, and modern-day Third World.

ANTH 460 - Historical Ecology

3 Hours

This course explores the topic of Historical Ecology and examines the relationship between humans and their environments from the perspectives of history, anthropology, archaeology, ecology, and biogeography.

Department of Art and Art History

ARS 101. Two-Dimensional Design Foundations. 3 Hours.
The course provides students with a foundational knowledge of two-dimensional creative media and an understanding of working with the elements and principles of art and design.

ARS 200- Experimental Drawing. 3 Hours

This course will expand students' knowledge of drawing and will explore a variety of approaches and media to improve their creative practice. Students will engage in active research of their individual creative practice as well as collaborative experiences.

Department of Biology

BY 101- Topics in Contemporary Biology. 3 Hours

Selected topics in the current understanding of biological systems, ranging from humans to ecosystems. Particular focus on scientific issues such as human diseases, genetic engineering, emerging infectious diseases, environmental causes of disease, and climate change, as well as analysis of these issues as presented in print and electronic media. NOTE: Not for biology majors or minors (with BY 102). This course, when taken with its corresponding laboratory, meets the Core Curriculum requirements for Area III: Natural Sciences.

ENV 108 Human Populations

3 Hours

Influence of human population on Earth's environment: ecological principles, population dynamics, climate change, water and energy resources, pollution, climate change, water and energy resources, pollution, waste disposal, plant and animal extinctions, and food resources. Lecture and films.

ENV 109 - Laboratory in Environmental Science

1 Hour

Experiments on topics essential to study of environment and which reveal complexity of solving environmental problems. Writing, Ethics and Civic Responsibility are significant components of this course.

Prerequisites: ENV 108 (Can be taken Concurrently)

BY 123 Introductory Biology I. 3 Hours

Basic chemistry, cell structure and function, metabolism, genetics, evolution, bacteria, and protists. For major in biology and related fields. Quantitative Literacy and Writing are significant components of this course. Lecture and laboratory. Eligible for, enrolled in, or have completed MA 106, MA 107, MA 125, or MA 126. This course meets the Core Curriculum requirements for Area III: Natural Sciences.

BY 124. Introductory Biology II. 4 Hours.
The course emphasizes the transition from cell, to tissue, to organs in multicellular systems. Specific attention in the course will be paid to a survey of the various groups of plants, fungi, invertebrates and vertebrates. Strong emphasis will be placed on comparing the anatomy and physiology of the major organ systems in humans with those of other organisms. The course is designed to expand the students understanding of the process of scientific writing. Quantitative Literacy and Writing are significant components of this course. This course meets the Core Curriculum requirements for Area III: Natural Sciences.

BY 451. Plant Biology. 3 Hours.
This course introduces the student to the basic concepts of plant biology including plant diversity, structure, physiology, metabolism, reproduction, genetics, molecular biology, evolution and ecology. It is targeted to Biology Majors and Biology Graduate Students. This class brings together knowledge and methodologies from a number of different disciplines to provide students with an intensive and comprehensive plant curriculum from the molecular to the organismal level.

BY 434/734 Functional Genomics and Systems
Systems biology is an interdisciplinary study underlying complex biological processes as integrated systems of many interacting components. This course will give students a foundation in understanding complex biological interactions at the molecular, network and genomic level. This course will cover state-of-the-art high throughput established and novel approaches used in genome sequencing, transcriptomics, proteomics and metabolomics to obtain, integrate and analyze complex data. The students will also get familiar with knowledge on experimental perturbation of genomes, gene regulatory networks, comparative genomics and evolution, basic bioinformatics. This course will be a combination of text based lectures and discussions of the current literature relevant to Functional Genomics and Systems Biology. 3 hours. Prerequisites: BY 210 [Min Grade: C]

BY 470 - Ecology

3 Hours

Ecosystems and population biology.

Prerequisites: BY 255 / BY 256 / BY 260 / BY 271

MESC 302 - Coastal Zone Management

2 Hours

Ecological features and set of physical management policies for coastal communities, with description of relevant federal and state programs.

Department of Chemistry

ES 101. Physical Geology. 3 Hours.
Study of the earth, its materials and natural resources, processes of change, natural hazards to mankind. Lecture. Designates a module focused on human-induced environmental change. This course, when taken with its corresponding laboratory, meets the Core Curriculum requirements for Area III: Natural Sciences.

ES 109 - Planet Earth

3 Hours

Major topics and problems in modern earth science. Nature of solid Earth and its atmosphere, climatic change, Earths resources, interaction of Earth with sun, and planetary geology. Selected readings and videotapes.

Department of Civil, Construction, and Environmental Engineering

CE 236 - Environmental Engineering

3 Hours

Air/water pollution and solid waste. Quality of environment. Environmental health. Regulations and legal considerations. Must have a grade of C or better to complete this course. Ethics and Civic Responsibility are significant components of this courses.

Prerequisites: MA 125 & CH 117

CE 395 - Engineering Economics. 3 Hours

Fundamental concepts of engineering economy. Introduction to cost and revenue estimating and cash flow analysis for engineering projects. Choosing between alternatives taking into account the time value of money, depreciation, inflation, income taxes and risk factors.

CE 431 - Energy Resources

3 Hours

Overview of the various energy resources: oil, natural gas, coal, nuclear, hydro, solar, geothermal, biomass, wind, and ocean energy resources, in terms of supply, distribution, recovery and

conversion, environmental impacts, economies, policy, and technology. Concepts and opportunities for energy conservation; including electric power generation, changing role of electric utilities, transportation applications, and energy use in developing countries. Field trips.

Prerequisites: CE 236

CE 433 - Solid and Hazardous Wastes Management

3 Hours

Overview of waste characterizations, regulations, and management options. The course covers fundamentals of landfill design, recycling, incineration, emerging disposal technologies, federal and state laws, and hazardous waste treatment, and ultimate disposal of hazardous waste.

Prerequisites: CE 236

CE 490 - Special Topics in Sustainability Design and Rating Systems. 3 Hours

This is a 3-hour course which addresses LEED-Neighborhood development (ND) principles and other green design applications and rating methodologies. Topics covered focus on sustainable transportation, smart location and linkage, neighborhood pattern and design, and green infrastructure and buildings. The course examines issues related to smart location selection, brownfield redevelopment options, walkability, compact development, mixed-use development options, and designs promoting accessibility for all, elements of certified green buildings, building energy and water efficiency, and stormwater, wastewater, and solid waste management infrastructure.

CE 531. Energy Resources. 3 Hours.

Overview of the various energy resources: oil, natural gas, coal, nuclear, hydro, solar, geothermal, biomass, wind, and ocean energy resources, in terms of supply, distribution, recovery and conversion, environmental impacts, economies, policy, and technology. Concepts and opportunities for energy conservation; including electric power generation, changing role of electric utilities, transportation applications, and energy use in developing countries. Field trips.

CE 585. Engineering Hydrology. 3 Hours.

Hydrologic principles including hydrology cycle, precipitation data, and stream-flow measurements. Applications to engineering problems; stream-flow analysis and watershed management.

CE 600. Sustainable Construction. 3 Hours.

Study of sustainable construction techniques and best practices. Provides an understanding of the interdependencies between planning, designing, building, operating, and demolishing the built environment and their impacts on the natural environment. Course topics will include: (1) issues of recourse efficiency, economics, ethics, waste, human health, environmental justice, and industrial ecology; (2) alternative practices that significantly reduce adverse environmental impacts of built infrastructure, and (3) explore past and present thinking of engineering practitioners in this newly emerging discipline.

CE 690 (Building Energy Conservation) has as its focus to learn fundamental heat transfer mechanisms, environmental impact associated with building energy conservation methodologies,

and approaches for reducing building energy usage. New lecture material will address sustainable infrastructure systems, such as efficient building fenestration, window glazings, building orientation, shading systems, green roofs, reflective roofs, etc.). Active and passive systems will be described. Temperature control techniques such as radiant cooling, chilled beams, and variable air volume systems will be presented. The economic benefits will be addressed in terms of associated payback periods.

**New Sustainable Smart Cities MS program first year courses:
Principles of Sustainable Development (UAB) - drivers of sustainable smart cities (i.e. climate change, population growth, resource scarcity, etc.) and the principles of sustainable development.

Introduction to Sustainable Smart Cities (SU) - sustainable urban planning and smart growth, engaging with smart citizens, sustainable governance and creating sustainable economic development.

Low Carbon and Renewable Energy Systems (SU) - low carbon and renewable energy technologies, renewable energy integration and smart grids.

Managing Natural Resources and Sustainable Smart Cities (SU) - water, waste and carbon management, pollution prevention, climate adaptation and resilience and integrated environmental systems management.

Green Infrastructure and Transportation (UAB) - public and open space design, principles of urban design and smart sustainable mobility and transportation.

Green Buildings (UAB) - smart buildings and infrastructure, principles of sustainable construction, sustainable building materials, building and energy management systems and standards and rating systems.

Health & Liveability (UAB) - genomics, health informatics, designing for well-being:, environmental justice and food smart cities.

Department of Clinical and Diagnostic Sciences

CLS 538 - Infectious Diseases

Pathogenic mechanisms of infectious diseases; normal flora and pathogens of various body sites; methods for collection, transport, and culturing different types of clinical specimens; interpretation of cultures. Prerequisites: CLS 523 [Min Grade: C]

Department of English

EH101 – English Composition SUS 3 Hours

Process and final product of expository and analytical essays. Research and documentation required on most essays. Students must receive a grade of C or higher in EH 101 and 102 to complete Core Curriculum requirement in English language. (Also see CLEP examinations and AP examinations.).

EH 222 – British and Irish Literature II: 1800-Present SUS

3 hours

British/Irish literature from end of eighteenth century into twentieth century with emphasis on writing and literary analysis. Writing is a significant component of this course. This course meets the Core Curriculum requirements for Area II: Literature.

Honors College, Science and Technology Honors Program

Introduction to the Scientific Process (STH 199). 3 Hours.

Fall semester of freshman year for students accepted in the Science and Technology Honors Program. Discussion of basic concepts of scientific methodology will be integrated with analysis of scientific journal articles and use of visual representations to communicate ideas. Students learn about research ongoing at UAB through working with a small team to analyze a scientific publication. Last year, the course dedicated the entire semester to studying climate change and sustainable development. The course will culminate in a presentation of a poster representing their analysis of the article.

Department of Environmental Health Sciences

ENH 400 - Our Global Environment: Issues and Challenges

3 Hours

This course will consider how biological, chemical and physical agents in the environment impact human health. Sources, routes of exposure, human health impacts and risk reduction will be discussed for each topic. Topics include indoor air pollution, medical radiation, noise, food and water contaminants, pests and pesticides, hazardous and solid waste treatment, natural disasters, biological and chemical terrorism, regulatory agencies and legislation, risk awareness and reduction.

ENH 405 - Nature vs. Nurture: Genes, Environment and Health

3 Hours

This didactic lecture course will examine how components of the world around us impact our lives and health. The classic battle of nature (genes) vs. nurture (environment) is being replaced with the understanding of how our exposure to our environment impacts gene expression, which can increase (or decrease) our own likelihood of disease. Using everyday, real-world examples we will study the environment-gene interaction and how this helps determine why some people are more disease prone than others. Each example will focus on the underlying science and the medical consequence of exposure, and will also examine exposure prevention strategies for individuals and practical legislation to reduce environmental contamination. Examples will vary from year to year, but damaging examples may include nanoparticles, smog, medical radiation, drugs and alcohol, pesticides, noise, indoor air pollution, toxic metals, plastics, food and water contamination, and sexually transmitted infections. We will also discuss how the environment can positively impact gene expression, and will include discussions of functional foods (i.e. nutraceuticals such as soy, green tea and garlic) and other alternative medicinal therapies. Prerequisite: BY116 or equivalent is required; completion of or registration in BY210 or BY330 is recommended.

Prerequisites: BY 116 or BY 123

ENH 600 - Fundamentals of Environmental Health Sciences

3 Hours

This introductory course is designed to teach public health graduate students the fundamental concepts of environmental health science, the scientific research methods used to study the interaction between human health and the environment, and basic issues in the management of occupational and environmental health problems. Prerequisites: Admission into the MPH program or permission of instructor. College level biology and/or chemistry strongly recommended. This course is also available online with permission of the instructor.

ENH 601. Environmental Chemistry

3 Hours

Chemical concepts applied to pollutant behavior in biosphere; absorption, leaching, evaporation. Mechanisms of chemical modification in environmental, photochemical processes, redox systems, hydrolysis; metabolic transformation of selected pesticides, air contaminants, and hazardous chemical wastes are also discussed. Prerequisite: General Chemistry and Calculus recommended.

ENH 660 - Fundamentals of Air & Water Pollution

3 hours

An integrated introduction to air and water pollution, including its sources, transport, and effects. Focus will be on measurement and characterization of air pollution and the bio-assessment of water quality. Regulatory control of pollutants and the technical aspects of engineering controls will also be given emphasis.

Department of Epidemiology

EPI 616 - Environmental Epidemiology

3 Hours

Design and conduct of studies examining health effects of environmental exposures. Strengths and limitations of research strategies and interpretation of study results. Areas of interest include air and water pollution, lead, and biological marker outcomes.

Prerequisite: EPI 600 or EPI 610

Department of Family, Community, & Health Systems

NFN 622 - Advanced Forensic Nursing. 3 Hours.

The purpose of this course is to prepare nurses to care for patients intersecting with legal systems, specifically as a member of an interprofessional team of forensic healthcare professionals. The course builds on philosophies, concepts, frameworks, and theories included in nursing, health, forensic, and legal sciences realizing an integrated model of forensic nursing care, focusing on specialized forensic nursing treatment of the individual and family to promote safety and health. Emphasis is on the care of the individual patient, intersecting with legal systems, and includes evaluation and treatment of wounds, the process of investigation, and the use of evidence in the discrimination between intentional and unintentional injury in the medical forensic setting.

Department of Government

PSC 355 - Politics of Development

3 Hours

Analysis of social, economic and political problems confronting the world's poor countries. Topics examined include national responses to the following problems: child soldiers and child labor; government corruption and transparency; ethnic conflict; environmental destruction; social inequality; globalization; and cultural preservation.

MPA 607- Quantitative Methods for PA: 3 Hours.

Using a pragmatic and applied approach, this course introduces statistical techniques used to analyze data in the social sciences including simple and multiple regression and nonlinear models. 3 hours.

Department of Health Behavior

HB 604 - High Technology Approaches to Health Communications and Behavior Change Interventions

3 hours

To present students with an initial, in-depth exposure to concepts, technical skills and research findings associated with the integration of computer technology and health communications. Course will be graded by letter.

Department of Health Care Organization and Policy

HCO 617 - International Children's Rights and Social Justice: Global Perspectives

3 hours

Familiarizes students with public health and legal issues with regard to children. The course provides background on international law and international human rights law, and international treaties focused particularly on children, followed by the role of public health in achieving these rights and lessening the gap between theory and practice. Prerequisites: Only available to School of Public Health degree seeking students.

Department of History

HY 480 - Historic Preservation and Public Policy

3 Hours

Ways to research, assess, and use historic buildings and architecture as a way to study history and inform public policy. Discusses conservation policy.

HY 101. Western Civilization I. 3 Hours.
This course examines the diverse cultures which are included in what is commonly referred to as the West. Students develop an understanding of the evolution of religious, political, social, military and economic structures and relationships in Europe and the Middle East up to 1600. Students develop an appreciation of how individuals have influenced and been influenced by time and place. Ethics and Civic Responsibility are significant components to this course. This course meets the Core Curriculum requirements for Area IV: History.

HY 102. Western Civilization II. 3 Hours.
This course examines developments in the Western World since 1600. Since for most of this period, European culture dominated the world the course will also examine interactions between the West and non-European cultures. The course focuses on political, economic, social and cultural developments and stresses change and continuity over time as well as the various ideas and debates which have marked the modern West. Ethics and Civic Responsibility are significant

components of this course. This course meets the Core Curriculum requirements for Area IV: History.

HY 120. The United States To 1877. 3 Hours.
This course provides an introduction to some of the main political, social, cultural, and economic developments in American history from the era of exploration and colonial settlement through the end of the Civil War. Central themes of the course will include the cross-cultural encounters (and clashes) in the Americas between various European and native peoples; the spectacular growth of European settlements in North America; the creation (always contested) of an American national identity; the emergence of a market economy based on natural resource extraction and the question of American ideas of success and happiness. Ethics and Civic Responsibility are significant components of this course. This course meets the Core Curriculum requirements for Area IV: History.

HY 121. The United States Since 1877. 3 Hours.
This course assists students in gaining a sophisticated understanding of the development of modern America - its politics, economics and social fabric together with how these have helped shape its foreign involvement. In the process, this course helps students understand the big idea of "change over time" and how all people face the choice of using change to help themselves and others - or not do this with resultant consequences. Finally, this course offers "lessons" out of our past about civic engagement, cultural diversity, and emerging globalism - "values" for productive citizenship on the contemporary scene. Ethics and Civic Responsibility are significant components of this course. This course meets the Core Curriculum requirements for Area IV: History.

HY 290. Topics in History: Disease in America. 3 Hours.
Special studies of historical topics.

HY 326. Mansions, Mines, and Jim Crow. 3 Hours.
This course will study the history of Birmingham (1871-1950) by examining the few men who owned the mines and mills, the masses of men who worked for them, and the way that Jim Crow segregation kept the system from working.

HY 439. American Environmental History. 3 Hours.
Changing perspectives on American environment and major issues in environmental history.

Department of Human Studies

EPR 594. Introduction to Educational Research Design. 3 Hours.
Introduction to educational research design purposes and characteristics of research process, types of research approaches and research designs, procedures for collecting, analyzing and evaluating data, critical review of published research, research ethics and institutional review.

CHHS 689. Intervention Strategies for Health Education/Promotion. 3 Hours.
Ethical, theoretical, and practical aspects of health education; teaching techniques, decision-making skills, curricular development, organization skills, and techniques.

Department of Management, Information Systems, and Quantitative Methods

IS 301. Introduction to Database Management Systems. 3 Hours.
An introductory course on database management systems. Emphasis is placed on providing students with the fundamental knowledge necessary to model business data needs, design logical data models, and design, implement, and use of a physical database in application development.

IS 321. Systems Analysis. 3 Hours.
Focuses on the planning, decision making tasks and requisite skills necessary for the analysis of information systems.

IB 495 - Business Study Abroad. 3 Hours

Academic course of study in a business discipline which takes place in a foreign location. Sophomore standing, UAB GPA minimum 2.7 and permission of Collat School of Business faculty sponsor. 3 hours. Prerequisites: (GPAT and GPAO 2.00) or (GPAU 2.00 and GPAO 2.00)

BUS 450. Strategic Management Capstone Experience. 3 Hours.
Senior seminar integrating functional business fields of accounting, economics, finance, information systems, management, marketing, production policy and decision making. This course is writing intensive and students must demonstrate an ability to write to appropriate audiences and incorporate pertinent external sources. Strong emphasis on ethical reasoning and decision-making and relating material to contemporary business events and issues. Must be senior in last term.

Department of Marketing, Industrial Distribution, and Economics

EC 210 - Principles of Microeconomics

3 Hours

Theory of production and value, including problems of monopoly, oligopoly, and distribution of income. Not open to entering freshmen.

EC 211 - Principles of Macroeconomics

3 Hours

Economic analysis and its use in dealing with business and governmental problems. National income, price-level, employment, governmental fiscal policies, and international economics. Not open to entering freshmen. (CORE AREA IV).

EC 308 - Economics of Environment

3 Hours

Use of economic analysis to examine interaction between economic institutions and physical environment. Specific topics: social costs and benefits of economic growth, interactions between private business and public welfare, and socio economic systems and goals.

Prerequisites: GPAT and GPAO 2.00 and EC 210 and EC 211 or GPAU 2.00 and GPAO 2.00 and EC 210 and EC 211

EC 405 - Economic Development and Growth

3 Hours

Problems of economic development; growth of less developed economies compared with those of advanced economies. Theories of economic development. Policy measures to promote development of growth, with emphasis on measures to accelerate development of countries.

Prerequisites: EC 304 and GPAT and GPAO 2.00 or EC 304 and GPAU 2.00 and GPAO 2.00

EC 413 - Urban Economics

3 Hours

Economic issues and structure of metropolitan areas. Economic growth and decay of urban regions. Specific topics: housing, education, employment, political economy, community revitalization and public safety.

Prerequisites: EC 210 and EC 211 and GPAT and GPAO 2.00 and EC 210 and EC 211 and GPAU 2.00 and GPAO 2.00

MK 320 - Industrial Distribution Management

3 Hours

Introduction to basic problems, concepts, and management practices of industrial distribution firms and manufacturing relationships. History of types of distributor organizations, functions, and role of industrial distribution in economy.

Prerequisites: AC 200 and EC 210 and MA 105 and GPAT and GPAO 2.00 or MA 105 and AC 200 and EC 210 and GPAU 2.00 and GPAO 2.00

MK 430 - Industrial Distribution Operations

3 Hours

Concepts of value added, profitability, inventory management, scheduling, decision support systems, facilities, and warehouse operations integrated with financial control of distributor operations. Case studies and industrial speakers.

Prerequisites: MK 320 and AC 201 and EC 211 and IS 103 or CS 101 and LS 246 and QM 215 and MK 303 and GPAT and GPAO 2.00 or MK 320 and AC 201 and EC 211 and IS 103 or CS 101 and LS 246 and QM 215 and MK 303 and GPAU 2.00 and GPAO 2.00

Department of Materials Science and Engineering

MSE 409. Principles of Metal Casting. 3 Hours.
Production and evaluation of cast ferrous metals (gray iron, ductile iron, steel) and non-ferrous metals (brass, bronze, aluminum). Design of castings and molds. Laboratory on the gating, risering and molten metal treatment, analysis and handling techniques required to produce high quality castings. MSE 409L must be taken concurrently.

MSE 280 - Engineering Materials. 3 Hours.

Fundamentals of materials engineering, including terminology, mechanical testing and behavior, heat treating, and processing of metals, ceramics, polymers, and composites. Degradation of materials and criteria for materials selection. Course requires completion of 4 credits of Area III Science.

MSE 498 - Capstone Design Project. 1 Hour.

Capstone design project: interdisciplinary design teams, ethics, materials selection, design process, development of proposal, project planning and scheduling, project execution and resource scheduling, and communication of design. Writing is a significant component of this course.

Department of Mechanical Engineering

ME 498. Capstone Design Project I. 3 Hours.
Capstone design project: interdisciplinary design teams, ethics, materials selection, design process, development of proposal, project planning and scheduling, project execution and resource scheduling, and communication of design.

Department of Philosophy

PHL 100. Introduction to Philosophy. 3 Hours.
Introductory survey of philosophy, its nature, methods and problems. Topics typically include, among others, existence of God, freedom, knowledge, right and wrong. Classical and/or

contemporary readings. This course meets the Core Curriculum requirements for Area II: Humanities.

PHL 115 - Contemporary Moral Issues

3 Hours

Survey of contemporary moral problems and dilemmas; introduction to methods and concepts of moral philosophy. Topics may include abortion, euthanasia, capital punishment, economic justice, homosexuality, animal rights, and environmental rights/respect for nature. Ethics and Civic Responsibility are significant components of this course.

PHL 116 - Bioethics

3 Hours

Moral problems and dilemmas in medicine and health affairs; elementary methods and concepts of moral philosophy. Problems typically include, among others, AIDS and human and animal experimentation. Ethics and Civic Responsibility are significant components of this course.

PHL 290/490- Topics in Philosophy: Environmental Ethics. 3 Hours.

In this course, we will consider the moral relationship of human beings to the natural environment and to non-human animals. We will explore the attempt to apply traditional ethical theories to this new area of concern. In addition, we will consider the challenge of environmental ethics to the anthropocentrism (i.e. human-centeredness) embedded in traditional western ethical thinking. Other topics include the preservation of biodiversity as an ethical goal, the broader concerns of some thinkers with wilderness, the built environment and the politics of poverty, the ethics of sustainability, and climate change. No previous philosophy course is required.

Department of Sociology

SOC 200 - Social Change

3 Hours

Change as ever present feature of contemporary, global societies. Comparative analysis of the impact of change on societies and citizens in Developed and Lesser Countries. Application of change theories to contemporary issues.

SOC 245 - Contemporary Social Problems

3 Hours

How certain social conditions or behaviors come to be seen as social problems, why they persist and how they can be changed. Emphasis on understanding contemporary issues, and how diverse social groups are impacted by them (an example being climate change).

SOC 370 - Population Problems

3 Hours

Scope and method of population analysis; analysis of growth, distribution of characteristics, and changes of population of U.S.; impact of changes in population structure on American and world society.

SOC 431 - Environmental Sociology

3 Hours

Examines the interaction between the biophysical environment and human society, how social processes, define, construct, and alter the environment, and human causes and consequences of environmental problems.

SOC 470 - Urban Ecology

3 Hours

Spatial distribution of social, demographic, and physical factors in urban environment; distribution of population by age, race and class; competition for land between businesses and homeowners; consequences of local ecology for poverty, health, etc.

SOC 480 - Sociology of Health and Illness

3 Hours

Critical evaluation of medical care system and health policy; social consequences of current health issues; social causes of health and illness; alternative practitioners and self-help groups..

School of Public Health

PUH 250 - Biostatistics.

3 Hours

Students will gain a thorough understanding of basic analysis methods, elementary concepts, statistical models and applications of probability, commonly used sampling distributions, parametric and nonparametric one and two sample tests, confidence intervals, applications of analysis of two-way contingency table data, simple linear regression, and simple analysis of variance.

Prerequisites: MA 102 or MA 105 or MA 106 or MA 107 or MA 109 or MA 110 or MA 125

PUH 300 - Environment Factors in PH

3 Hours

This didactic lecture course open to students from all majors will survey current issues and challenges in our global and local environmental and how those impact our health. It will examine the sources, exposure routes, regulation and health outcomes associated with biological, chemical, and physical agents in the environment, both naturally occurring and man-made. We will examine these agents and how they impact air, water and food quality to cause disease. Regulatory agencies, risk assessment and disaster response and preparedness will be discussed.

PUH 301 - Origins of Epidemics: How Public Health Defines Population and Nations

3 Hours

The intellectual tools of public health describe diseases from cholera and pandemic avian influenza to obesity and diabetes that threaten the integrity of organized societies. This course explores the richness of public health through its disciplines and its stories to demonstrate how the understanding of the origins of epidemics determines the progress of civilizations.

PUH 302 - Epid: Beyond the Outbreak

3 Hours

The course will provide students with a basic understanding of epidemiology history, methods, and practice. The history of epidemiology will focus on major historical events such as John Snow and the 1854 Broad Street cholera outbreak . The course will also cover basic epidemiologic methods such measures of disease occurrence (e.g., prevalence and incidence) as well as basic study designs such as case-control and cohort studies. Later in the term, students will utilize actual epidemiologic investigations in order to learn how these methods are put into practice. The coursework will focus mostly on discussion for the first part of the course focused on the history of epidemiology. The section on methods will primarily be problem-based, performing basic analysis of epidemiologic data through calculation of prevalence/incidence and measures of association (e.g., prevalence ratio, incidence rate ratio). This work will lead to students to prepare a document on how they would respond to an outbreak in a situation described by the course master. The entire coursework will take place in a lecture format, with the class meeting twice a week.

PUH 303 - Intro Global Health

3 Hours

This course is designed to provide students with an appreciation of the interdisciplinary nature of global health, its history, successes to date, and current challenges. Students will be introduced to basic concepts of health disparities, major causes of morbidity and mortality worldwide and social/environmental determinants of health. Students will be introduced to challenges of health care organization and delivery and will discuss health as a human right. Finally students will discuss key 'players' in global health and how partnerships are essential for addressing health needs worldwide, Lectures, discussion, and case studies will be integral teaching elements of the course.

GHS 303: Food Security and Nutrition-Local, National and Global Issues

International Recognition/Activities

This service-learning course will examine food security and nutrition as complex issues of sustainable human development. While learning about food security and nutrition in the classroom, students will gain further understanding of the topic through engaging with non-profit organizations in Birmingham that address food security and nutritional issues. Topics to be covered include issues of availability, access, and use of food in the domestic and global context, as well as current responses and potential solutions. The course will also focus on helping students develop a skill set for global citizenship that includes opportunities for advocacy, leadership, and critical thinking.

PUH 322: Environmental Justice and Ethics. 3 Hours.
In this course, students will investigate and analyze the disproportionate burdens of environmental contamination and the health disparities affecting communities of color across the U.S. and internationally. Using a broad range of examples we will look at the incidents that lead to this grass roots movement, many of which came from towns and peoples of the Deep South. 3 hours. Prerequisites: PUH 201 [Min Grade: C] and PUH 202 [Min Grade: C] and PUH 220 [Min Grade: C]

PUH 333- Food, Water, and Air: The Global Environment and Health. 3 Hours.

This service-learning course will examine food security and nutrition as complex issues of sustainable human development. While learning about food security and nutrition in the classroom, students will gain further understanding of the topic through engaging with non-profit organizations in Birmingham that address food security and nutritional issues. Topics to be covered include issues of availability, access, and use of food in the domestic and global context, as well as current responses and potential solutions. The course will also focus on helping students develop a skill set for global citizenship that includes opportunities for advocacy, leadership, and critical thinking.

GHS 402: Global Health Cases
International Recognition/Activities

Global Health cases refer to instances of health problems that transcend national borders. Diseases are not constrained by borders. Similarly, problems and solutions to these cases are not unique to a particular race, region, socio-political system or even level of economic development. These cases also carry the dubious reputation of having a global political and economic impact. Yet a closer look at site specific successes can yield important lessons about how to tackle the challenges confronting similar cases in other sites.

School of Nursing

NUR604 Leadership in Advanced Nursing Practice Roles