SUNY Polytechnic Institute

Department, course number, course name, number of credits, relevant [Sustainable Development Goals](https://www.un.org/sustainabledevelopment/sustainable-development-goals/)

Sustainability Courses (Sustainability-Focused):

ANT 110 Intro to Cultural Anthropology (4) (SDG 3, 5, 8, 14, 15)

Provides an understanding of contemporary human issues through the study of diverse human cultures, with an emphasis on non-Western societies and practices. Basic concepts and ethnographic techniques practiced by cultural anthropologist are resented. Topics include family, language, kinship, health, gender, economics, politics, ecology, are and religion. Examination of issues such as globalization and the study of online communities and cultures. Meets General Education Social Science requirement.

ANT 250 Consumerism and Social Justice (4) (SDG 8,10,12,16)

Explores consumption by considering its place in society, the impact of markets and branding on adults and children, consumer identity, the differences between free and fair trade, global trade, food supplies, and the potential links between shopping and social justice.

ANT 280 Refugee Cultures in the U.S. (4) (SDG 4, 8, 10, 11, 16)

Refugees are people who have fled their home countries due to war, ethnic or religious conflict, or other problems, and are not able to return for fear of persecution. The United States has welcomed refugee groups from many countries and helped them find new homes and communities throughout the country. This course uses a multidisciplinary approach from anthropology to address the history, adaptation, and resettlement experiences of refugee cultures in the U.S. A mix of video, books, news articles, discussions, and optional field trips will be used. An emphasis will be placed on personal stories and experiences from resettled refugee men and women.

ANT 303 Cultural Diversity (4) (SDG 5,10)

Examines the nature of social and cultural systems of diversity. Investigates cultural practices Relevant to the constitution of such social constructs as race, class, gender and sexuality. Emphasizes the processes through which such ideas, products and culturally and historically constructed social worlds, become parts of a taken-for-granted social universe. Integrates the relationship between conceptions of race, class and gender and sociological and anthropological practice. Meets new General Education Social Science requirement.

ANT 382 Cultures, Health and Healing (4) (SDG 3)

Presents the essential elements of a cultural perspective through examination of health and illness-related behavior. Places disease and illness in holistic perspective. Explores specific issues in medical anthropology, such as the way various cultures conceive disease and illness, cross-cultural conflict in health care delivery, industrial and non-industrial approaches to therapeutic intervention, the relationship of disease and human evolution, and alternative approaches to the study of such issues. Assumes no previous study in anthropology, although this would be helpful. Prerequisite: ANT 301 or SOC 110 or an introductory anthropology or sociology course.

BIO 106 Solutions for a Sustainable World (4) (SDG 1,2,6,7,8,9,11,12,13,14,15,16)

Examines a broad survey of environmental, social and economic problems and explores solutions for a sustainable future on local, bioregional and global levels. Topics include population growth and consumption, world poverty, global climate change, renewable energy, transportation and biofuels, water conservation, GMO’s, local and organic food production, green building, socially responsible business investing, carbon cap and trade, microlending, environmental racism, and ecovillages among others. The instructor, student teams and guest speakers will give presentations on these issues. Students will see examples of sustainable solutions in their local community on scheduled site visits. Meets new General Education Natural Science requirement.

CBH 375 Biopsychosocial Context of Health and Wellbeing (4) (SDG 3, 10, 11, 12)

Employs a biopsychosocial model in understanding health and well-being. Examines topics such as health models, mind-body connections, stress/illness connection, stigma, environmental links to health, health policy, and social disparities/inequalities in health and well-being. Prerequisites: STA 100 and PSY 100 and SOC 100.

CBH 450 Psychosocial Impact of Technology on Health (4) (SDG 3, 9)

Provides an overview of how technology impacts health and well-being. Includes a service-based learning project and interdisciplinary collaboration, which will vary by semester.

CE 448 Green Building Strategies: LEED Lab (SDG 3, 6, 7, 8, 9, 11, 12, 13)

This is a multidisciplinary course that utilizes the built environment’s performance, operations and maintenance to educate and prepare students to become green buildings leaders and sustainability- focused citizens. This course will equip students with the skills, knowledge and expertise needed to be effective communicators, project managers, critical thinkers, problem solvers, engaged leaders, and team players in the field of sustainability. Campus buildings will be used to improve performance of the building through measurement and verification, operation, and maintenance with the application of green building rating systems focused on LEED V4.1 for Existing Buildings Operations and Maintenance. Successful course completion can prepare the student for LEED Green Associate or O+M specialty exams credentials. CE 448 / ME 448 is cross-listed.

CTC 215 Sustainable Energy Systems (2) (SDG 7, 9, 13)

An introduction to sustainable energy systems. Topics include solar energy, wind energy, fuel cell technology, biomass energy, geothermal energy, clean coal technology, ocean energy, hydroelectric power, and nuclear power. Two hours of lecture per week. Cross-listed with ETC 215 and MTC 215

HIS 330 American Women’s History: U.S. Historical Experiences in Hemispheric Perspective (4) (SDG 3, 4, 8, 10, 16)

An examination of the history of women in the United States from European colonization (ca. 1600) to the present, plus the opportunity to compare American women’s experiences with those of their peers throughout the Western Hemisphere. Themes addressed will include: race and ethnicity in colonization and coexistence, labor (paid and unpaid) and class issues, health and sexuality, religion and spirituality, and legal and political struggles. Meets new General Education American History requirement.

HIS/IDS 375 Gender Issues in World History (4) (SDG 4, 5, 10)

An examination of how gender roles have shaped the experiences of diverse men and women in a range of human societies worldwide, and how those roles have affected experiences of cultural interaction among societies in modern and recent history. Using historical monographs and primary sources, students will employ critical reading and writing skills to gain in-depth knowledge of these experiences and of trends in the field of gender history that can guide independent inquiry. Fulfills the SUNY General Education requirement in Western Civilizations and Other World Civilizations. Cross-listed with IDS 375.

IDS 103 Science, Technology, and Human Values (4) (SDG 1, 2, 3, 8, 9, 10, 11)

An exploration of the interrelationships between science and technology and their social and cultural contexts. This course is a topics-based investigation that introduces students to a multi-disciplinary examination of a specific topic with the goal of developing an integrated, coherent, and well-rounded understanding of both that topic and the value of interdisciplinary inquiry. Possible topics include health and illness, food, transportation, energy, information, and other subjects. A reading and writing intensive seminar class; meets the Humanities SUNY General Education Requirement.

IDS 251 Principles of Green Building (3) (SDG 3, 6, 7, 8, 9, 11, 12, 13)

Explores and integrates multiple perspectives on the principles behind green building design and development of the green building industry. Methods and analytical frameworks from science and engineering disciplines, as well as social and humanistic perspectives, will inform a deep understanding of the design of green buildings and the intents behind a variety of high-performance building standards. Students will reflect on the design and certification of a real green building project to LEED standards and earn a personal accreditation as a LEED Green Associate.

ME 425 Sustainable Energy: Choosing Among Options (3) (SDG 7, 8, 9, 12, 13)

The technical, economic, environmental and physical resources constraints of energy sources are discussed in terms of both national and global development needs. The current states of both non-renewable and renewable technologies are presented in terms of their potential contribution to sustainable energy resources required for continued viable economic development. Prerequisite: ME 330, or senior standing or permission of instructor.

MST 565 Sustainable Energy for Sustainable Development (3) (SDG 7, 8, 9, 12, 13, 14, 15)

An overview of sustainable energy as a basis for sustainable development. Topics include: energy resource evaluation, types of energy, economic and physical demand for energy, resource utilization (land, water, and other fixed assets), technical performance including implications of the second law of thermodynamics, regional and global effects of energy production, role of economic evaluation in energy projects, sustainability metrics, future resources including geothermal, biomass, solar thermal & solar electric, wind and hydropower. Prerequisites: Permission of instructor.

Courses that Include Sustainability (Sustainability-Related):

ACC 492 Accounting Internship (4) (SDG 8)

Supervised, discipline related experience in a business organization. Emphasis is on application, process, and techniques used by business to sustain business and promote growth. Specific skills and competencies needed to be a successful decision-maker will be targeted. Oversight will be provided by the School internship coordinator and the sponsoring organization. Periodic meetings with the supervisor, mid-semester evaluation, and a final, comprehensive written report are required. Prerequisite: Permission of instructor.

BUS 492 Business Internship (4) (SDG 8)

Supervised, discipline based experience in business organization. Emphasis on application, process, and techniques used by business to sustain and promote growth. Specific skills and competencies needed to be a successful decision-maker are targeted. Oversight provided by the School internship coordinator and the sponsoring organization. Periodic meetings with the internship coordinator, mid-semester evaluation and a final, comprehensive written report are required. Pre-requisite: Permission of Instructor. Only S/U grades are awarded for this course.

CBH 290 Special Topics in Health and Well-Being (4) (SDG 3)

Investigates a topic in health and well-being. Students may receive credit in future semesters for a different topic. Prerequisites: SOC 100 or SOC 110 and PSY 100.

CBH 491 Independent Study in Health and Wellbeing (Variable 1-4) (SDG 3)

Provides a structure for extensive study and/or directed research (under faculty supervision) on a topic. Application form must include a description of the project, its duration, educational goals, method for evaluation, and a suggested number of credits. Prerequisite: matriculated students only; permission of the Instructor.

CBH 493 Project Seminar in Health and Well-Being (4) (SDG 3, 11)

Second of a two-semester methods/capstone sequence in Community and Behavioral Health, students will continue with the practicum placement from CBH 492 and will carry out an individual research project in the area of health and well-being. Prerequisite: CBH 492.

CE 302 Transportation Engineering (3) (SDG 9,11)

Introduction to basic concepts in transportation engineering including: planning, design, and operations. Introduces the challenges and issues in modeling transportation problems. Studies of various concepts related to the design of highway facilities, level of service, and demand for transportation services. Concepts related to signal optimization, policy implications and the basics of transportation planning. Prerequisite: MAT 152.

CE 303 Environmental Engineering (4) (SDG 6,11,13,15)

Students in the class will be introduced to topics relevant to environmental engineering. Topics to be covered in class include pollution in air, water and solid wastes, as well as, engineering approaches for treatment and remediation of the pollution in these environmental media. Three hours of lecture and one hour of lab per week. Prerequisites: MAT 151 and BIO 101T, and BIO 101L or CHE 130T and CHE 130L. Restricted to Civil Engineering major.

CE 335 Water Resources Engineering (3) (SDG 6,11)

Students will explore water resources engineering processes in pipe flows, pipe networks, open channel flow, and surface and groundwater hydrology. This course is designed to review the fundamentals and practices of water resources engineering with a focus on engineering applications of hydraulics and hydrology. The concepts of fluid mechanics (hydrostatics, conservation laws) will be applied to analyze flow phenomena are illustrated in demonstrations and field trips. The course will prepare interested students for future careers in water supply, wastewater treatment, floodplain management, storm water management, and groundwater management. Prerequisite/Co-requisite: CE 330.

CE 430 Hydrology and Storm Water Management (3) (SDG 6,11)

Students will learn about hydrologic design and the analysis of drainage and storm water management systems. This will include hydrologic cycle components necessary for determining design flows and pipe flow calculations. Computer modeling. Prerequisite: CE 303.

CE 431 Hazardous and Solid Waste Treatment (3) (SDG 3,12,15)

Teaches students about hazardous and solid waste including: waste identification, subsurface fate and transport, toxicology, environmental/public health and risk assessment, site characterization and assessment tools, remediation tools and technologies. Prerequisite: CE 303.

CE 432 Water & Waste Water Unit Design (3) (SDG 6,11)

Design-based environmental engineering course. Unites design of drinking water and waste-water treatment plants. Applies microbiology, water chemistry principles, and units of treatment-plant design techniques. Prerequisite: CE 303.

CE 480 Capstone Design I (3) (SDG 9,11)

This course will provide students with the opportunity to work as part of a multi-disciplinary Civil Engineering design team. The course will consist of developing the preliminary design plans with presentations and reports. Students will learn about the regulatory process, LEED design, and site planning. Lectures in professional practice and teaming will augment the design project. Prerequisites/co-requisites: Senior standing and completion of one class in a CE emphases.

CE 481 Capstone Design II (3) (SDG 9,11)

This course will provide students with the opportunity to work as part of a multi-disciplinary Civil Engineering design team. The course will consist of a design project with presentations and reports. Lectures in professional practice and teaming will augment the design project. Prerequisites/Co-requisites: Senior standing, successful completion of CE 480 and completion of one of the CE emphases.

COM 308 Analytical & Research Writing (4) (SDG 4)

Students pursue a research project of their own design, using primary and secondary sources. Scholarly and theoretical sources are analyzed in class and used in the research essay. Students keep a research log and practice a variety of research methods. Meets Upper Division Writing.

CTC 450 Water and Wastewater Systems (4) (SDG 6,11,12)

Topics include water quality, water supply systems, solid waste management and pollution control. Co-requisite: CHE 110T and CHE 110L.

CTC 491 Independent Study (Variable 1-4) (SDG 6,9,11,12,13)

Extensive study and research on a particular topic of student interest under the supervision of a faculty member. The student is required to submit a written proposal which includes a description of the project, its duration, educational goals, method of evaluation, and number of credits to be earned. Prerequisites: Matriculated students only, permission of instructor and dean of subject area.

CTC 492 Internship/Co-Op Assignment (2 or 4) (SDG 6,9,11,12,13)

Provides part-time supervised experience in a professional atmosphere which supplements classroom instruction. Two written reports on the work experience and two supervisor’s evaluations required. One site visit or conference call planned. Required contact hours min. 150. Prerequisite: Permission of instructor. Free elective; CANNOT be counted as a technical elective. Course is graded as satisfactory/unsatisfactory.

ECO 425 Economics of the Environment (4) (SDG 8,11,12,13,16)

An economic analysis of environmental protection. Topics include: the economic nature of environmental problems; a description of air, water, and land pollution; global environmental issues; the economics of natural resource use, conservation, and recycling; and an analysis of the history and evolution of environmental policies in the United States. Prerequisite: ECO 110 or equivalent.

ENT 492 Entrepreneurship Internship (4) (SDG 4,8)

Supervised, discipline based experience in business organization. Emphasis on application, process and techniques used by business to sustain and promote growth. Specific skills and competencies needed to be a successful decision-maker are targeted. Oversight provided by the School internship coordinator, min-semester evaluation and a final, comprehensive written report are required. Prerequisite: ENT 375, ENT 378, and Permission of Instructor. Only S/U grades are awarded for this course.

ENG 101 First-Year Composition (4) (SDG 4)

An introductory expository writing course. Students will write a variety of short essays, culminating in a research essay. Emphasis is on close reading, discovering worthwhile topics, drafting and revising, and evaluation and presentation of evidence. Students will also be evaluated on the development and implementation of an oral presentation. Meets new General Education Basic Communication requirement.

FIN 492 Finance Internship (4) (SDG 8)

Supervised, discipline related experience in a business organization. Emphasis is on application, process, and techniques used by business to sustain business and promote growth. Specific skills and competencies needed to be a successful decision-maker will be targeted. Oversight will be provided by the School internship coordinator and the sponsoring organization. Periodic meetings with the supervisor, mid-semester evaluation, and a final, comprehensive written report are required. Prerequisite: Permission of instructor.

HIM 403 Introduction to Epidemiology (3) (SDG 3)

Preventing the incidence of disease requires an understanding of the risk factors associated with its cause. This course will provide a foundation for understanding the dynamics of health and disease in society, and impart a grasp of the fundamentals of epidemiology.

HIS/IDS/SOC 367 American Protest Movements (4) (SDG 4, 8, 9, 13, 16)

An interdisciplinary course that examines the phenomenon of protest movements in America historically and social scientifically, especially sociologically. Protest movements have been studied by scholars for decades. We will explore the history of protest, up to and including the growth of contemporary forms of protest movements. We will examine why people protest, and how they protest, paying particular attention to issues surrounding strategy and tactics, the media, civil disobedience, the relationship between protest movements and the authorities, protest and coalition building, and the institutionalization of protest. Finally, we will analyze whether protest actually matters- why do some movements succeed while others fail, and what is the meaning of success and failure, and for whom. In very general terms, by the end of the course, we will be able to determine whether protest in an inherent part of American society and of the identity of America. This course relies primarily on historical and social scientific approaches to understanding protest movements, but in recognition of the complexity of the phenomenon of dissent, will at times also focus on materials from other disciplines, such as social psychology and the arts. The aim of the course is to introduce the student to key issues, while teaching how to cogently and critically analyze contemporary issues surrounding dissent and protest movements. Students who have completed IDS 367 for credit cannot also take SOC 367 or HIS 367.

IDS 203 Introduction to Science, Technology, and Society (4) (SDG 8, 10)

Explores the humanistic and social dimensions of science and technology by looking at the interactions and interrelationships among science, technology, and society. We will explore: 1) the practice of science and technology to understand how scientific and technological work are conducted as creative and human enterprises; 2) how science and technology are shaped by different social and economic forces; 3) the impact of science and technology on society; 4) ethical issues related to science and technology.

IDS 230 Foundations and Theories of Leadership (4) (SDG 4, 9, 17)

An introduction to the intellectual and conceptual foundations for understanding the complexities of leadership in contemporary society. Approaching the topic from an interdisciplinary perspective, students will explore the significance and meaning of leadership in diverse contexts and examine different theories and models of leadership. By critically examining different approaches to leadership, students will clarify and articulate their own approach to leadership.

IDT 521 Global Communications (3) (SDG 1, 8, 10, 13, 16)

An exploration of globalization and changing communication processes as they relate to information design and technology. Topics include economics, trade, human trafficking, technology, poverty, development, immigration, environment, and activism. The seminar will allow for opportunities to learn about global communication and practice cross-cultural and international communication skills. Students will also be analyzing key issues using current literature from a variety of fields.

ITS 304 Idea to Startup (3) (SDG 4,8)

Students will develop an action plan for their business. This will include developing a plan to get your product to market, develop a proof of concept or demo, develop a business plan, which can be used to pitch your idea to investors, and refine the team which will help you get your idea to market. The culmination of the final project is a presentation to investors. This course and BUS 304 cannot both be taken for credit.

ME 422 Heating, Ventilating and Air Conditioning (3) (SDG 3,7,9)

The analysis and design of heating air conditioning systems. Topics include: psychometrics, comfort & health, heating and cooling loads, solar radiation, air distribution systems and refrigeration. Three hours of lecture per week. Prerequisite: ME 410.

MGT 492 Management Internship (4) (SDG 8)

Supervised, discipline related experience in a business organization. Emphasis is on application, process, and techniques used by business to sustain business and promote growth. Specific skills and competencies needed to be a successful decision-maker will be targeted. Oversight will be provided by the School internship coordinator and the sponsoring organization. Periodic meetings with the supervisor, mid-semester evaluation, and a final, comprehensive written report are required. Prerequisite: Permission of instructor.

MIS 315 Introduction to Management Information Systems (4) (SDG 8)

The wide availability of powerful and affordable information technologies today has made it imperative for managers and entrepreneurs to not only appreciate the role that they play in achieving organizational goals but also develop skills to deploy them for both personal and organizational competitive advantage. This course introduces students to information technologies, the common systems built using such technologies, the major organizational processes that such systems sustain, and the development and management of systems in organizations. Topics covered include the role of business intelligence, e-commerce, hardware, software, databases, and telecommunications; information systems development and management.

MKT 492 Marketing Internship (4) (SDG 8)

Supervised, discipline related experience in a business organization. Emphasis is on application, process, and techniques used by business to sustain business and promote growth. Specific skills and competencies needed to be a successful decision-maker will be targeted. Oversight will be provided by the School internship coordinator and the sponsoring organization. Periodic meetings with the supervisor, mid-semester evaluation, and a final, comprehensive written report are required. Prerequisite: Permission of instructor.

MST 545 Alternative Fuel Vehicles (3) (SDG 7,8,13)

Current and future fuel vehicle technologies will be presented and evaluated. The class will exam each alternative fuel’s associated environmental and economic challenges.

MTC 450 Solar Energy Concepts (4) (SDG 7,11,13)

Energy resources, energy consumption patterns, and future energy supplies. Physical, technical, and economical aspects of solar energy as a present and future source of energy. State‑of‑the‑art applications of solar energy to domestic household applications. Four‑hour lecture per week, with laboratory work substituted for lectures as appropriate.

MTC 466 Wind Turbines (4) (SDG 7,11,13)

Introduction to Wind Turbines. Topics include: wind resources, aerodynamic principles, blade manufacture, control methods, performance testing, ecological effects, planning and regulations for wind energy development. Prerequisite: MTC 461 or equivalent or permission of the instructor. Four hours lecture per week.

N ENG 102/102Z (= N SCI 102/102Z) Societal Impacts of Nanotechnology (3) (SDG 3,9,13)

Introduction to the societal implications of nanotechnology innovation including public perception of nanotechnology, public impacts, nanomaterials risk assessment, and impacts of nanotechnology on public health policy and energy/environmental sustainability. Only one version of N SCI 102 or N ENG 102 may be taken for credit.

N ENG 103 (= N SCI 103) Economic Impacts of Nanotechnology (3) (SDG 8,9)

Introduction to the economic impacts of nanotechnology innovation. Basic economic principles will be presented and discussed in terms of emerging nanotechnologies. Topics will include economics of nanoelectronics; nanoscale technologies for energy and the environment; and nanobioscience/nanobioengineering. Only one version of N SCI 103 or N ENG 103 may be taken for credit.

N ENG 421 Introduction to Solar Cell Nanotechnology (3) (SDG 7,9,13)

Covers physics of photovoltaic devices. Provides an introduction and overview of semiconductor physics relevant to solar cells, p-n junctions, and design and function of solar cells. Discussions will focus on first, second and third generation solar PV that includes mono and multi-crystalline silicon, thin films (CIGS, CdTe, GaAs) and tandem cells, as well as next generation organic and perovskite based solar cells. Topics will include nanotechnology impacts on solar devices that include cells, modules, measurement techniques, metrology, systems, reliability, operation, maintenance and economics of emerging solar cell technologies. Prerequisite: Permission of instructor.

N ENG 423 Renewable and Alternate Energy Nanotechnologies (3) (SDG 7,9,13)

Provides a broad overview of the global energy landscape, growing energy demand and various energy options impacted by nanotechnology innovations. Diverse sources of renewable energies that include solar, hydroelectric, wind, biomass, fuel cells will be discussed in the context of efficiency, current state of development and economic feasibility. In addition, applying nanotechnology innovations to batteries, solar cells, super capacitors, fuel cells and superconductors will be reviewed. Prerequisite: Permission of instructor.

NNSE 622 Thermodynamics and Statistical Mechanics of Small Systems (3) (SDG 9)

This course addresses the fundamental concepts and methods of statistical thermodynamics relevant to the investigation of nanomaterials and their application to the development of new nanoscale electronic, biomedical devices and sustainable energy nanotechnologies. Topics covered include fundamental concepts and methods in thermodynamics and statistical mechanics, statistical thermodynamics of surfaces and interfaces, phase transitions, wetting phenomena, molecular dynamics and Monte Carlo simulations, transport processes and chemical kinetics. Prerequisites: Foundation of Nanotechnology modules. It is recommended a student has passed the qualifying exams in Nanoscale Science or Nanoscale Engineering. Permission of instructor.

NNSE 624 Finance and Valuation of Nanotechnology Based Firms (3) (SDG 8)

This course will cover elements of entrepreneurial finance, focusing on nanotechnology based start-up ventures. The first part of the course will cover models that can be used for valuing nanotechnology based firms. The second part will address key questions which entrepreneurs in nanotechnology based industries face: how much money can and should be raised, when should it be raised and from whom, and how funding should be structured. The subject aims to prepare students for these decisions as entrepreneurs in nanotechnology related industries. Prerequisites: Open to graduate students in the CNSE or Departments of Economics, School of Business, with permission of instructor.

NNSE 640 NanoTechnology and Photovoltaics (3) (SDG 7,9,13)

Topics focus on the application of nanoengineered materials and structures to photovoltaic technologies and include impact on performance and operation. Prerequisites: Foundations sequence, permission of instructor.

NNSE 682 Entrepreneurship, Law and Emerging Technologies (1) (SDG 8,16)

This course offers students the opportunity to work with faculty and students from Albany Law School and will expose them to the science, art and law of entrepreneurship and emerging technologies. Students will not only receive grounding in the law of business development and intellectual property, but will also be steeped in the science behind nanoscale technologies so that they can practice effectively in this rapidly emerging field. This course follows a nontraditional schedule. Students will be expected to participate in a one day introductory workshop. The remainder of the course will be delivered in by weekly sessions. Please contact faculty member for more schedule details. Prerequisite: Permission of instructor.

NNSE 689 Nano and Public Health Internship (3-6) (SDG 3,9)

The internship program at either institution will offer concentrations in the areas of: epidemiology, environmental health, biomedical sciences, health policy, nanoscience, nanoengineering, nanobioscience, or nanoeconomics. These internships will be in support of research for the NanoLife initiatives which focuses on environmental and human health and safety of engineered nanomaterials. Internship rotations may be full-time or part-time. Each credit represents a minimum of 80 hours of work with a host agency or organization. A paper and an oral presentation are required. Prerequisite: Admission to the MPH program or CNSE graduate program.

NUR 524 Program Planning and Development (2) (SDG 3,11)

Program planning provides a concise, practical, critically reflective approach to planning, managing, and evaluating health programs within an acute or community based health care delivery system. A variety of theoretical and health system models are applied to program planning. The program planning process is presented with illustrations of how this process provides fiscally sound, sustainable change in a variety of practice and collaborative environments.

PHI 120 Introduction to Asian Philosophy (4) (SDG 4)

An examination of the major traditions, foundational texts, and key figures in Asian philosophy. The practice and concept of philosophy in a non-western context will be explored, and fundamental ontological, epistemological, ethical, and political questions will be addressed. Geographic regions to be discussed include India, China, and Japan, and traditions to be studied could include Vedanta, Buddhism, Daoism, Confucianism, Moism, Legalism, and Zen. Meets General Education Other World Civilizations requirement.

PSY 270 Cognitive Psychology (4) (SDG 3)

A survey of memory, thinking, language, and problem solving. The course will follow the history of psychological theory on cognition from associationism to gestalt approaches to modern information processing approaches and artificial intelligence. Particular attention will be paid to practical and clinical applications of research. Prerequisite: PSY 100

PSY 377 Health Psychology (4) (SDG 3)

Health and illness is experienced within a broad psychosocial context. Physical states affect mental states and mental and emotional experiences have the capacity to influence the course of physical health and illness. Investigates the relationship that exists between physical and mental health. Emphasizes the role that psychological, cultural and social factors have for both physical health and illness, and also examines stress and stress management techniques. Prerequisite: PSY 100.

PSY 420 Parenting and Culture (4) (SDG 3,5)

Students will be exposed to parenting practices across cultures- Western and non-Western, and learn how various parental beliefs and parent-child interactions affect developmental outcomes. Topics also include less optimal parenting practices and interventions to improve problematic family relationships. Prerequisites: PSY 100, PSY 220, or permission of instructor.

SOC 220 Sociology of Gender (4) (SDG 5,10)

Explores contemporary theories, understandings and performances of gender, with attention to the intersections of race, class, gender and sexuality. Also examines the relationships of gender to life opportunities and experiences, social structures and societal reproduction. Prerequisite: SOC 100 or equivalent.

SOC 240 Class Inequality: Poverty and Wealth in the United States (4) (SDG 1,10,17)

Focuses on income inequality in the United States, as defined as by an unequal distribution of wealth, power, and status. Addresses how inequality has become institutionalized, thereby becoming an important part of the everyday, taken-for-granted operation of society. Acknowledges how changes in these arrangements are resisted and how those groups at the bottom of the power hierarchy may acquiesce in their own exploitation. Examines the influence of economic systems, the race and gender systems, belief systems, political systems and state systems on inequality structures. Assesses the utility of qualitative research in providing a subjectivist understanding of poverty. Requires an experiential activity that may be off-campus. Prerequisite: SOC 100 or SOC 110 or equivalent.

SOC 290 Special Topics in Sociology: Refugee Resettlement (1-4) (SDG 1,2,3,10)

Treatment of a special topic in Sociology. Provides student with the opportunity to investigate sociological subject matter. Students may receive credit in future semester for different topic area. Prerequisite: SOC 100 or equivalent.

SOC 370 Sociology of Health and Illness (4) (SDG 3)

Integrates varied sociological perspectives with the study of health and illness. Investigates the relationship between social structure and the experience of health or illness. Examines the organization and delivery of medical services in the United States. Focuses on the individual’s experience of illness. Links sociological theory and sociological practice in the healthcare arena. Prerequisite: SOC 100 or equivalent.

TIM 585 Leading Organizational Change and Innovation (3) (SDG 9,16)

Leading change at the individual, group, and organizational levels is critical to the survival, growth and success of various types of organizations. This course aims to prepare leaders for the challenges of guiding organizations through strategic change and innovation projects. Pressures in the dynamic external and internal environments of firms create opportunities for, or make necessary, innovation and transformation. Given the complex nature of change, the course offers a holistic and multi-disciplinary view of sustainable change and innovation by integrating knowledge from three discrete domains: creativity and design, leadership, and organizational change. This course expands the standard innovation discourse by introducing technological design concepts and principles as tools for effectively envisioning future change states. Furthermore, the course explores the human, technological, network, environmental, industry, public sector, and societal variables that mediate creative and innovation outcomes for organizations. Prerequisites: TIM 500 or permission of instructor.

TIM 685 Strategic Planning (3) (SDG 8,17)

This is the capstone strategy course that covers the economics and strategy of technology and innovation management. An integrating experience using case studies to apply the various skills and knowledge accumulated throughout the required coursework in business and technology management. Special emphasis will be upon how organizations fit within the social, political, and economic environments. Managerial strategies to optimize achievement of objectives in high technology environments will also be covered. [Formerly BUS 685]