**SCIENTIFIC WORLD (SW)**

**SW 152 | STRESS REDUCTION USING HUMOR AND SPIRITUALITY | 2 quarter hours**  
(Undergraduate)  
Stress affects the body in dramatic ways, and is a major contributing factor in chronic and degenerative diseases. We will understand and describe the physiology and biochemistry of stress and, more importantly, apply effective methods to reduce and manage it. Effective stress reduction and burnout prevention then become important health, wellness, productivity and disease prevention strategies for individuals, schools, businesses, the medical industry and the culture. The effective stress reduction techniques include breathing, biofeedback, humor, spiritual exploration, connection and inspiration. The holistic paradigm of body, mind and spirit supports our informed search for meaning, connection, calm productivity and enhanced health. (2-4 quarter hours)

**SW 153 | SCIENCE FOR CITIZENS | 2 quarter hours**  
(Undergraduate)  
Students will learn basic knowledge of science as they engage in activities that are connected to their everyday life. They will explore their natural ecosystem and be able to describe various functions. They will engage in the scientific method through observations, hypotheses, data collection and basic data analysis. Students will apply their critical thinking based on the scientific method to local environmental or science related issues/events. (2-4 quarter hours)

**SW 193 | SEXUAL ORIENTATION & SCIENCE | 2-4 quarter hours**  
(Undergraduate)  
This course will engage you in scientific inquiry on the nature of sexual orientation. You will be challenged to master the scientific content of leading programs of research on twins, brain and other anatomical structures, hormones, genetic linkages, birth-order, and animal behavior through assigned readings, lectures, and multimedia resources. Moreover, you will also engage in the scientific process through a collaborative research project concerning an aspect of sexual orientation that leads you through the steps of stating a question, designing a study, collecting and analyzing data, and interpreting the results. You will also develop skills in identifying the limits to particular forms of scientific inquiry by recognizing the constraints of methods, sources of bias, reliability of results, and certainty of conclusions. This course will encourage you to place the modern research within ethical and social contexts in which to make judgments about the potential relevance and impacts of scientific knowledge about sexual orientation.

**SW 201 | DATA ANALYTICS | 2 quarter hours**  
(Undergraduate)  
This course is designed as an introduction to fundamental techniques of data analytics and the various fields, such as various business and decision sciences (accountancy, economics, finance, marketing, management, operations, and healthcare), which use data to gain insights and make informed decisions. In this course students will learn various analytical tools and demonstrate their ability to execute, understand, present, and discuss analytical results. Thus, building a strong foundation in supporting data-driven decision making in various fields of interest. Major topics include the applications of logical and financial functions; data visualization and manipulation, and what-if analysis. (2-4 credit hours)

Management Information Systems majors and minors are restricted from registering for this section.

**SW 206 | NUTRITION AND BIOLOGICAL DEVELOPMENT | 2 quarter hours**  
(Undergraduate)  
Today's consumers want and need to be educated about taking charge of their own health. With the current fast-paced world that has spilled over into our eating habits, food choices have become unlimited. Choosing a healthful approach to diet requires basic information about our body's nutritional needs. The greater our understanding of our basic bodily needs, the better we are able to make choices concerning our health. This course will offer an overview of the basic science of nutrition, with an emphasis on the relationship between disease and nutrition, and current research findings.

**SW 208 | ISSUES IN SCIENCE AND RELIGION | 2 quarter hours**  
(Undergraduate)  
This course develops students' understandings of the scientific and religious constructions of self in the modern world (natural and social). The institutions and bodies of knowledge comprising science, religion, and their overlap are critically analyzed. Key historic debates are examined, for example: the Vatican's trial of Galileo for his teachings of a heliocentric universe; the controversial reception of Darwin's theory of evolution; and the 2001 U.S. policy on embryonic stem cell research. Through such analyses, the course develops students' skills in making ethically-informed decisions and thus recognizing their roles in the public debates involving the intersection of science and religion.

**SW 212 | URBAN ENVIRONMENTAL SCIENCE | 2 quarter hours**  
(Undergraduate)  
The study of environmental science uncovers the relationship between the built environment and the natural processes of the earth. This includes human interactions and the impact on habitats, plants, animals and those non-living entities that we rely on such as water, air and soil. An examination of the dynamics of human population growth and migration, food production and climate issues, chemical toxicology and health, waste and sustainability, energy production and consumption will illustrate how these issues are connected by increasing global urbanization. This course will provide the framework to guide your decisions as a consumer and a citizen in both a global and local environment. Role-playing and discussions on everything from the choices of fabrics for clothes, transportation, animal rights to the amount of water used while brushing your teeth will show the connections of your behavior to global consequences. Through reading, research, writing, class discussion, individual and group projects, students will learn the key to a sustainable future.

**SW 217 | UNDERSTANDING AND MEASURING INTELLIGENCE | 2-4 quarter hours**  
(Undergraduate)  
In this course, students examine intelligence testing and its uses in employee selection and placement. Students learn the principles of assessing human traits (reliability, validity, bias and other systematic errors), and apply them to intelligence testing. We will work to define "intelligence" and consider various approaches to intelligence, contrasting the theories of unitary vs. multiple intelligences. Students will examine the implications of the definitions and measurement approaches on different groups of people, both historically and currently, with attention to the unintended effects of the biases of test developers and the ethical implications of different approaches and uses of intelligence testing.
SW 218 | W.A.T.E.R. - WHAT ABOUT THE OTHER ESSENTIAL RESOURCE? | 2 quarter hours (Undergraduate)
Water supports all aspects of our life. Water impacts our environment, health, security, and the economy. There is a need for society to be water wise? in today?'s world. Creating sustainable methods to resolving water quantity and quality problems in stormwater, wastewater, watershed and water distribution systems is essential. If you are interested in learning more about the dynamics of water and how you can be an engaged citizen, this is the learning experience for you. We will explore and discover scientific, social, cultural, artistic, and historical viewpoints of water. Finally, this course offers an opportunity for learners to think critically, problem-solve, engage in active learning, and most of all peer collaboration. (2-4 hours)

SW 219 | NEUROPLASTICITY AND THE AGING BRAIN | 2 quarter hours (Undergraduate)
In this course, we will examine the latest research on the aging process and, specifically, its relationship to the brain. We will cover a mix of material from psychological and, especially, neuroscientific fields. Students will also be introduced to the field of neuroplasticity, which is revolutionizing the way we understand the functioning power of the brain. Neuroplasticity, in simple terms, is the brain?'s ability to rearrange its connections and, therefore, its functions based on experiences. In other words, the brain has the capacity to literally change itself, based on experiences, to achieve positive results. The goals of this course are to understand how the brain works, examine its impact on our daily actions, study how aging impacts brain functioning, discover the learning and adjustment potential of the brain, and apply the principles of the 3 P?'s. We will use numerous examples to understand the brain, including health, work, relational, and personal settings. Students will ultimately answer the question of whether they will have an aging or reengaging brain.

SW 223 | PRINCIPLES OF A SUSTAINABLE LIFESTYLE | 2 quarter hours (Undergraduate)
Our consumer choices, habits and lifestyle have a local and global impact. The items we consume, such as housing, furnishings, clothing, transportation, travel, food, recreation, entertainment, and disposables mainly come from non-renewable natural resources produced in far away lands and have a cradle-to-grave lifecycle. Awareness and education as to the safety and efficacy of consumer products is often suspect with contradicting information from the media, manufacturers, government and advocacy groups. Employing a sustainable paradigm for all of your consumer choices will allow you to have a smaller footprint, (ecological and carbon) on the planet and live a healthier, guilt free existence. We will explore the meaning of the "triple bottom line" or cradle to cradle approach to consumption. Consumer models, field trips and personal experiments will help pave the way to become a conscientious global citizen.

SW 229 | ISSUES IN HEALTH POLICY AND ADMINISTRATION | 2 quarter hours (Undergraduate)
The goal of this course is to provide a general overview of the American health care and health insurance systems. We first will discuss the debates over the enactment and framing of the American constitution, and the political institutions that the nation then developed. We then will analyze the health care system that emerged in this political context, focusing on 1) the rise of the private health insurance system; 2) the incentives provided by government to encourage employers to purchase such insurance on behalf of their employees; and 3) the debate over the role of government in providing coverage for those outside the employer-sponsored health insurance systems. We will examine in some depth the evolution and current context of the Medicaid Program, taking a close look at the politics that led to the 2003 Medicare Modernization Act, as well as the issues raised by the implementation of that law. The following questions will be examined in this course: Is it possible to provide coverage to the uninsured without increasing the national debt? What are the main drivers of rising health care costs and what are the options for cost-containment? What are the options for aiding the uninsured? What are the options for paying for any such initiatives? What are the longstanding obstacles to comprehensive reform proposals? What are the politics of the current, Affordable Care Act, reform initiative? Why is it that the American health delivery system suffers from specialty maldistribution (too many specialists and not enough generalists) and geographic maldistribution (too many providers in some communities and too few in others)? What is managed care? What does the managed care industry look like today? What is the difference between disease management, care management and the current efforts to create "medical homes?" What are provider profiles and how are they used to improve quality? Why is it that the nation does not have an effective long-term care insurance system? What are the alternatives to institutionalization for those in need of long-term care services?

SW 230 | UNDERSTANDING AND APPLYING PROJECT MANAGEMENT | 2 quarter hours (Undergraduate)
Project Management is a very important business discipline that can become very complicated. There are numerous Project Management methodologies, and all of them share the same basic steps and tools. The purpose of this course is to demystify Project Management by presenting its basic framework and tools. The course translates Project Management theory into a practical and effective methodology the student will be able to apply on the job. Starting with working definitions of Project and Project Management, the course describes how projects are initiated, evaluated and organized with analytic techniques such as discounted cash flow and PERT/CPM. Project execution and control are covered next, along with the documentation and communications skills that are needed to keep a project on track. The course concludes with an overview of Project Management applied to computer software development.
how pharmaceutical agents relate to health and disease.

Between healthy human biological systems, pathology development, and will help to build a foundation for basic understanding of the relationship current literature review, discussion and audio visual adjuncts, the course consider current drug development. Through the use of a textbook, a historical overview of the use of medicine throughout the ages and play in attempting to minimize drug utilization. The course will include those systems. Discussion will include pharmacokinetics, drug action in health while highlighting and emphasizing the chief pharmacological (Undergraduate)

SW 246 | PHARMACOLOGY AND HEALTH | 2 quarter hours
(Undergraduate)

This course will be an overview of the main human biological systems in health while highlighting and emphasizing the chief pharmacological agents used to treat common human diseases and pathologies of those systems. Discussion will include pharmacokinetics, drug action mechanisms, side effects, costs, and the role that prevention might play in attempting to minimize drug utilization. The course will include a historical overview of the use of medicine throughout the ages and consider current drug development. Through the use of a textbook, current literature review, discussion and audio visual adjuncts, the course will help to build a foundation for basic understanding of the relationship between healthy human biological systems, pathology development, and how pharmaceutical agents relate to health and disease.

SW 247 | CREATING ACADEMIC AND BUSINESS DOCUMENTS | 2 quarter hours
(Undergraduate)

This hands on course is conducted in a computer classroom so students can learn software skills by creating academic and business documents using MS Office 2013?PowerPoint and Word. This is not a writing class - students will not write any papers. Focus is on mastering PowerPoint and Word software skills. Plain text will be provided for classroom work and for weekly homework assignments. Students will format text and analyze the impact of colors in PowerPoint and develop Word formatting skills for academic papers and business documents including flyers and brochures. Students will analyze real-world situations, identify appropriate software solutions and apply the best software to accomplish tasks and goals. Students will present their own PowerPoint creation in the last class. (2 hours)

SW 249 | ANIMAL SCIENCE AND THE ROLE OF MODERN ZOOS | 2 quarter hours
(Undergraduate)

The main objective of this course is for students to increase their love and understanding of animals!!! It will be a fun and interactive course where you will gain a general understanding of the animal kingdom and how animals are classified. You then will be able to identify animals as an individual organism, describe their natural habitat and better understand their role or ecological niche as it relates to its environment. Students will discover the importance of zoos and how they have become leaders in providing the knowledge needed to preserve the natural world. You'll learn what zoos do with that information and how they make a difference with regards to environmental issues such as habitat destruction and the importance of species preservation. Students will investigate different zoological institutions and compare how each are unique in their animal collections, the way they support and conduct research, and convey that knowledge to the scientific community and the general public.

SW 250 | WIDGETS, CLICKS, & TWEETS: ESSENTIALS OF APPLIED WEB TECHNOLOGY | 2 quarter hours
(Undergraduate)

This course will provide students with an overview of the history of the Internet and basic marketing strategies as they relate to the Internet and Web 2.0 technologies. Students will learn about how to keep abreast of new technology, how these technologies can be used to market services and products as well as how they can be used to create and maintain social networks for professional use.

SW 254 | ENVIRONMENTAL SUSTAINABILITY AND ADVOCACY | 2-6 quarter hours
(Undergraduate)

BRIDGE PROGRAM COURSE. This course focuses on the interdisciplinary study of humans, the environment, and their interrelationships. It includes natural resources and processes, growth and change, values, and individual responsibility and civic engagement. It will explore the complex relationship of the individual to urban systems and of urban systems to the world environment. Emphasis will be given to the ecology of metropolitan Chicago, engaging and challenging students to propose and advocate for programs and policies that bring about a more sustainable city — "What could a sustainable metropolitan Chicago look like? What are you willing to do to achieve that ideal?" Writing assignments and field work, as appropriate to the discipline, are part of the course.
SW 255 | BRAIN, MIND AND BEHAVIOR | 2 quarter hours
(Undergraduate)
Scientists have only recently found means to isolate chemicals of the brain, analyze its electrical systems and try to answer questions such as: How does the brain strike a balance between its genetic blueprint and influences from the environment? Where does it "hold" language? This course explains what science knows and does not know about the human brain. It draws on the most current findings, theories, and applications of brain science. Students will meet for guided discussions and will be given textual material for class activities and independent assignments.

SW 256 | EVERYDAY ECOLOGY | 2 quarter hours
(Undergraduate)
Every week, we learn of typhoons and landslides, floods and hurricanes, droughts and other natural catastrophes. Scientists now agree that the major cause of climate shift is man-made, specifically our use and abuse of global energy resources. In Everyday Ecology we will analyze our energy use patterns and explore practical alternatives. The word "ecology" originates from the meshing of two Greek words meaning the "study of homes." Although the main focus of this course is the individual household, another "household" we must take into account is the economy. Ecological economics examines how both disciplines need to look toward the other to be viable long term. We will examine options to bring the earth household (ecology) and the human household (economy) together for the benefit of both. This course observes how "man" is connected to the world around him. It allows us to see our options in response to growing concern over global climate change. Through readings, field trips, activities, discussions and an analysis of our personal use of energy, this course enables us to become increasingly aware of ecological issues. You will learn to evaluate the effect of personal choices on the earth and be introduced to alternative, "greener" options.

SW 259 | PREHISTORIC LIFE | 2 quarter hours
(Undergraduate)
This course promotes students' investigation of fossils to interpret the character of 3.5 billion years of biological evolution and ecological change on earth. By way of scientific reasoning, mathematical inference, and applicable technologies, emphasis is on the exploration of earliest evidence of life, development of multi-celled plants and animals, dinosaur evolution, mass extinction events, mammal diversification, human origins as well as appraisal of the societal reliance on fossil resources and the persistent debate over evolution versus creation. Learning is assessed through labs, a fieldtrip, an exam, video summaries, contributions to online discussions, and a research paper in a scientific format.

SW 260 | CLIMATE CHANGE & GLOBAL RISK MANAGEMENT | 2 quarter hours
(Undergraduate)
This course design positions students to analyze the distributive effects of climate change on natural and social systems. These consequences must be identified and their interactive effects measured. Social structures are vulnerable to major shifts in natural systems, and the security concerns linked to climate change require awareness and preparedness. Models of risk management and public security are analyzed in the light of the cascading effects of this global phenomenon. (2-4 hours)

SW 261 | EXPLORATIONS IN BIOLOGY | 2 quarter hours
(Undergraduate)
This course provides an introductory study of organic macromolecules, the cell, genetic activity and the theory of evolution. Throughout the course we will stress the interdependence of the three biological sub-specialties of genetics, ecology and evolution.
**SW 275 | BODY, MIND, SPIRIT: YOGA AND MEDITATION | 2 quarter hours (Undergraduate)**

Why are 20 million Americans practicing yoga? This course answers that question with an introduction to yoga and meditation techniques and the underlying scientific and philosophical principles of the system of yoga. The first half of each class will be experiential, conducted as a yoga and meditation class for beginners, providing tools to reduce stress, focus the mind, and cultivate inner peace. This first hour and a half will use yoga postures, breathing exercises, and meditation techniques. The second half of each class will use readings, reflection, and discussion to examine the scientific and philosophical knowledge of yoga as a way to ease stress, strengthen the bone and muscle structures, lower blood pressure, increase flexibility and strength, improve mind functioning, and provide spiritual sustenance. We will read Yoga Mind Body and Spirit: A Return to Wholeness by Donna Farhi, and The Yoga Sutras of Patanjali, research articles on the scientific studies of yoga's benefits from journals and websites, etc. Students will keep weekly reflection journal observations on the changes(s) they notice in themselves. This course will refresh, relax, rejuvenate. Yoga mats and other props will be provided. Bring/wear comfortable clothes (no jeans, belts, dresses). This is a Gentle Yoga class for beginners. Yoga means to unite or yoke so course will explore the ways to unite body, mind, spirit. This course is designed to 1) help establish good health and well-being; 2) gain scientific knowledge and understanding of the various systems of the human body; and 3) explore the spiritual benefits of meditation.

**SW 282 | NUTRITION BASICS AND BEYOND | 2 quarter hours (Undergraduate)**

This introductory course will provide a framework for understanding the fundamentals of nutrition, vitamins and minerals, nutrition and disease prevention, food labeling, nutrition through the life cycle, weight management and more. Each class will build upon the basics by exploring current issues and research related to specific topics. Throughout the course, students will begin to separate information from misinformation as well as gain practical knowledge to incorporate into day to day life.

**SW 285 | ENVIRONMENTAL ETHICS | 2-4 quarter hours (Undergraduate)**

This course contains two distinct strands of learning: (1) the current condition of the natural world and the ways it is approached scientifically; and (2) the major premises of the most significant ethical frameworks in use today. Using this knowledge, students investigate several contemporary environmental problems, identifying their underlying causes, and analyzing various proposed solutions. This is complemented by the intensive study of major ethical perspectives, particularly those which have developed alongside, and as a consequence of, grave environmental concerns. The course project is a collaborative endeavor to integrate the knowledge and skills acquired through mastery of both learning strands.

**SW 292 | EXPLORING EARTH'S PHYSICAL FEATURES | 2 quarter hours (Undergraduate)**

This course advances student exploration of earth's 4.5 billion year geologic record in order to evaluate the planet's evolution and the interrelationships between humans and landforms. Through the application of scientific reasoning, mathematical inference, and prevailing technologies used by geologists, emphasis is on plate tectonics, geologic time, the rock cycle, weathering, earthquakes, fluvial features, rock structures, volcanoes, mountains, plateaus, plains, glacial features, deserts, caves, and coasts. Students also assess human reliance on landforms, the economics of landforms, and cases of earth pseudoscience. Learning is assessed through labs, fieldtrips, a scientifically-formatted research paper, an exam, and contributions to online discussions.

**SW 295 | SUCCESSFUL INTERVIEWING | 2 quarter hours (Undergraduate)**

Interviewing "the process of asking and answering questions" is a part of everyday experience. This course introduces and explores the fundamental principles, theories and techniques of interviewing including the interpersonal communication process, common types of interviews, interview structure, questions and responses. Through collaborative and experiential learning activities, students will prepare for and participate in all aspects of the interview process as the interviewer and interviewee.

**SW 301 | HEALTH INEQUALITIES AND SOCIAL ACTION | 2-4 quarter hours (Undergraduate)**

Health Inequalities and Social Action will focus on research methods of environmental science, ethnography, epidemiology and geospatial analysis against the backdrop of the collaborative research project titled: ?Inequality of Life Expectancy in Chicago.? This course will demonstrate how the natural and social sciences connect to conduct collaborative research in order to pose meaningful questions about health disparities associated with life expectancy and to facilitate learning by taking social action.

**SW 315 | URBAN SCIENCE CONNECTIONS | 2 quarter hours (Undergraduate)**

Urban Science Connections will provide an opportunity for learners to investigate the inter-relationships between humans and their natural and/or physical environments in enhancing quality of life in urban environments. Learners? lived experience will holistically connect science with urban settings, risk management, and social action using critical thinking, problem-solving, active learning, and peer-to-peer collaboration. Topics such as water, soil, ethical and legal issues, risk management, and global resources will be discussed. Soil and water impact our environment, health, security, and the economy. There is a need for society to be ?environmentally wise? in the world today. Creating sustainable methods to resolving global environmental issues is essential today. If you are interested in learning more about the dynamics of the urban environment and how you can be an engaged citizen, this is the learning experience for you. (2-4 hours)
SW 317 | NUTRITION & COMMUNITY | 2 quarter hours  
(Undergraduate)  
Food is central to our being. The nutrients within food provide for our daily biological needs and homeostasis. Moment to moment, over days to months to years, the requirements and demands by our body for nutrients are met by the foods that we eat. How important are those foods that provide our nourishment for our health? What happens when the quantity or quality of those foods are challenged or less than optimal? What impact does it have on the individual? What impact does it have on the health and security of the society? What part does each of us play and what is our responsibility not only for individual health, but societal health now and into the future? This course will examine the scientific evidence for the role healthy food plays in the delicate homeostasis between the interconnected systems within the body as well as advance our understanding of the many nutrition related issues and challenges that exist within our communities in the quest for individual and societal health. Further, students will engage in a community related initiative that actively explores and integrates their understanding of the role that nutrition may have on the health of the greater community. Competences: L3, S4, S5. (6 cr hrs)

SW 320 | TECHNOLOGY, CRIME, AND CIVIC ENGAGEMENT | 4 quarter hours  
(Undergraduate)  
The focus of this course is the well-functioning civic community, and its reliance on the productive engagement of its members (group and individual). We examine crime in the age of the internet, and use models of civic engagement to posit novel solutions to these "hidden? and ubiquitous activities.

SW 328 | GLOBAL INFECTIOUS DISEASES AND HEALTH | 2 quarter hours  
(Undergraduate)  
In this course we will learn about the global burden of disease with an emphasis on understanding the critical intersection of policy, social expectations in determining how health systems function and adapt to address new challenges; and examine why some health systems are so fragile in the face of new disease challenges such as the Covid-19 pandemic. We will look at the role of globalization in introducing "western world" diseases to low and middle income countries, and we will learn about the science-based methods and tools we have to track the emergence of new disease threats, assess global disease burden, understand disease mitigation strategies, and compare our ability to measure improvements in health outcomes in well-resourced and resource-poor countries. Online learning will include readings, slide presentations, discussions, and open-source epidemiological tools to examine disease burden and trends.

SW 329 | DATABASE DEVELOPMENT FOR MANAGING INFORMATION | 2-4 quarter hours  
(Undergraduate)  
Using MS Office tools suite (in particular Access), this course takes students through the entire process for building a database system that will be used to capture, store and present information. In addition to database concepts like designs, reports and SQL queries, the students will discuss and analyze relationships between technology and society.

SW 332 | BIODIVERSITY | 2 quarter hours  
(Undergraduate)  
The science of Biodiversity is the study of life on earth, both past and present. It involves the exploration and measurement of the amount of genetic, species, and ecological variation on earth and is emerging as one humanity's most important and urgent endeavors. Scientific efforts to study earth's biodiversity have intensified because of our growing appreciation of the role human population growth and urbanization play in accelerating the extinction of plant and animal species. This course introduces students to the nature of science and the central issues concerning life on earth including: the current state of biodiversity, valuing life's variations, human dependence on biological diversity, the origin and extinction of species, mass extinction, critical habitats at risk, and policies and approaches to conserve biodiversity (2-4 hours)

SW 333 | THE HUMAN GENOME PROJECT | 2 quarter hours  
(Undergraduate)  
This course presents a basic understanding of genetic principles necessary to discuss the impact on society of the Human Genome Project. Classical genetics, from its inception as a discipline, held that every organism's genetic makeup was conditioned primarily by environmental factors. Darwin summarized this by claiming that environmental pressures produced organisms whose genetic makeup ensured survival in a particular environment (the survival of the fittest). Contemporary genetics, however, is entering a new era in which both the environment and genetic technologies share in the mission of modifying an organism's genetic makeup. The project of sequencing the human genome has enabled scientists for the first time to identify health-related genes and, based on this, to design new treatments for age-old diseases. At the same time, the Human Genome Project, and genetic research based on it, is raising ethical concerns for the way genetic knowledge will impact health care into the 21st century. Genomics, as the new discipline is being called, explores this complex but fascinating world of cutting-edge genetic research. It is this very world that we will explore in our class setting through a variety of methods including laboratory investigations, class discussions, and student presentations. You may register for up to three competencies.

SW 334 | EVERYDAY CHEMISTRY | 2 quarter hours  
(Undergraduate)  
Each day we are immersed in chemicals and are participants in and observers of many chemical reactions. This course is designed to teach chemistry and physical science through the observation and explanation of many events we observe in daily life. It has been specially planned for students who have little or no background in science. We will examine the chemistry of substances from table salt and food additives, to fuels for our cars and homes, to semiconductors, new plastics, and revolutionary materials that will improve our lives in the 21st century. This class will emphasize the interconnections in our world through science. We will address safety and the "positive" and "negative" impact of chemicals on our world. There is a chemistry kit required for this course, so that you can perform the experiments safely at home.

SW 337 | THE HUMAN GENOME AND ITS IMPACT | 2 quarter hours  
(Undergraduate)  
This course will address the principles of genetics with an emphasis on the genetic code of the human genome. In this course we will examine: how the genetic code is stored, how it is used, how it is evolving, how it is passed from one generation to the next, the consequences of genetic code errors, the medical, technological, legal and ethical issues associated with the human genome. We will discuss how we can, and how we should, use the information on the human genome.
SW 352 | TECHNOLOGY, TRAINING, AND HUMAN PERFORMANCE | 2-4 quarter hours
(Undergraduate)
What Robinson and Robinson describe as "the shift from providing training to improving performance" has been cited as a top priority in our fast-paced, global economy. This course covers the principles of training and human performance through an analysis of real case studies in a number of work environments. The course will also present the necessary technology and instructional design tools so that students can design their own training program and develop a basic training and performance plan that reflects their own work environments. Students are expected to have basic computer skills, including the ability to use and save work with Microsoft Word.

SW 354 | DATA DRIVEN DECISIONS | 2-6 quarter hours
(Undergraduate)
This course provides different topics including approaches to problem solving, an introduction to data analysis and its role in business decisions, how to manage the future value of money, basic concepts in statistics and probability and how they are applied in everyday settings. Students will have great opportunity to explore and use Excel application as a tool for solving business problems. As a group, we will investigate topics in descriptive statistics, correlation, normal distributions, probability, sampling distributions and hypothesis testing. Students will learn various advanced graphing and charting techniques available in Excel and use them for data analysis and interpretation.

SW 356 | DATABASE DESIGN AND IMPLEMENTATION FOR SMALL BUSINESS APPLICATIONS | 2-4 quarter hours
(Undergraduate)
This course will teach non-computer literate persons to be able to translate a business problem into a conceptual database design, and further to convert the design into a database application using Microsoft Access. By the end of the course, the student should be able to apply knowledge to the following: (1) describing basic database concepts and using common database terminologies; (2) designing databases using appropriate design notations; (3) translating a schema into a database application in Access; (4) conducting simple user-interface design; and (5) designing small business-based applications.

SW 360 | SOCIETY AND INFORMATION TECHNOLOGIES | 2 quarter hours
(Undergraduate)
Humans have a long line of technological advances that includes tools, weapons, transportation, mechanical, industrial, and medical advances. On one hand, the computer is just another invention that is part of this long line of technological advances. On the other hand, the ability to program the computer makes it different with an incredible diversity of uses. Computer technology has made large impacts in diverse areas such as sports management, health care, employment, manufacturing, education, defense, and automobiles and many other areas. This course explores how computing technologies such as computer software and hardware, and networking has affected our society. Students will examine the basics of how these technologies work and how they have affected areas of human endeavors. We will examine how these technologies changed, improved, simplified and complicated society.

SW 366 | EXPRESSIVE ARTS THERAPY | 2 quarter hours
(Undergraduate)
This course offers a multi-arts approach in which different art modalities are woven into the therapeutic process as appropriate to a client's situation. It is grounded not in any particular techniques or media but in the capacity of the arts to respond to human suffering. Various arts—poetry, movement, drawing, painting, journaling, improvisation, music, and sculpture—are used in a supportive setting to facilitate growth and healing. Expressive arts processes have been used successfully in almost all psychotherapeutic contexts, ranging from work with the severely ill to the facilitation of human growth and potential. There is a growing use of the arts in health education, hospice work, and in community art projects especially after catastrophic events. The class will be conducted in a workshop format in which theoretical content will be combined with experiential learning. Lecture, discussion, audio-visual presentation, experiential exercise, guest speakers, and field trips comprise the structure of the class.

SW 367 | LEISURE, RECREATION, AND HEALTH | 2 quarter hours
(Undergraduate)
This course will stimulate your thinking about the meaning of leisure in your life. Leisure today and historically has been central to the human experience. It is an elemental experience, essential to the total well-being of every person; it is a reflection and expression of the cultural values of a society; it is an important vehicle for treatment. Leisure and recreation services are also essential for healthy communities in terms of social climate, environmental quality, and economic stability. Leisure services comprise one of the largest and fastest growing industries in the world, whether measured in dollars spent, persons served, hours of time devoted, or resources used. The study of leisure and recreation is a broad discipline, combining diverse fields of study and professional practice. This course will (1) illustrate the importance of leisure to you and your loved ones, (2) contribute to your ability to become an informed consumer of leisure, (3) question the binary relationship of work and leisure and, (4) teach you how to use leisure to increase emotional and physical health, resulting in a higher quality of life. The course will be interactive and participatory.

SW 371 | DINOSAURS | 2 quarter hours
(Undergraduate)
Dinosaurs are one of the most diverse and successful groups of vertebrates in earth's history. Originating over 220 million years ago, they dominated earth's land biomes for over 150 million years and diversified to include the largest land animals in earth's history, a wide range of aquatic groups, and even a diverse clade capable of flight (the birds). Consequently, mammals remained in the background as small nocturnal creatures during the dinosaurs' long reign. Only after a cataclysmic extinction event 65 million years ago involving most dinosaur groups did the mammals diversify into modern groups including our own primate lineage. This course will introduce students to the remarkable dinosaurs, tracking their origin, surveying their success, and evaluating their decline. Learning will emphasize investigation of the forms, function, and variation within the major dinosaur groups as well as the connections of dinosaur evolution to diverse factors such as climate change, ecology, biological competition, and mass extinction. The course learning activities will encompass discussions, readings, lectures, labs, internet resources, museum resources and original inquiry.