

NTU
GEN-ED COURSE REVISIONS
May 14 2020

ART STUDIO

ART 110 (3) Art Studio I

ARTS 1110 (3) Arts and Design Survey

An introduction to disciplines within Arts and Design encompassing two-dimensional, and three-dimensional studies. Projects will be based on a common conceptual theme for the semester. Students will gain a fundamental understanding of issues of aesthetics, innovation, critical interpretation and collaboration central to arts and design studies. Discussions and assigned readings will provide a critical overview of historical and cross-cultural examples.

ART 195 (1-3) Topics in Art

ARTS 2996 (1-3) Special Topics

Specific subjects and credits to be announced in the Schedule of Classes.

ASTRONOMY

AST 110 The Solar System

ASTR 1010C (4) Introduction to Solar System Astronomy

Astronomy 1010 provides a historical introduction to the science of astronomy, with an emphasis on the nature and evolution of models of the solar system. We spend time on the fundamentals of modern astronomy, including motion, forces, gravity, and the nature of light. We focus on the dynamics and physical properties of solar system objects, including planets, moons, asteroids, and comets. Finally, our study culminates with an investigation of the origin of the solar system. Additional topics may include recent advances in astronomical research and findings from current solar system exploration by automated spacecraft. Astronomy 1010 is a course designed for students having little or no background in astronomy or physics. The course focuses on interpretation of the nature of the solar system based on modern observational techniques and the properties of light and matter. The course includes laboratory activities (indoor and outdoor) investigating the properties of the objects within our Solar System in addition to an analysis of Solar System phenomena. Topics include measuring the properties of Solar System objects (their sizes, distances, etc.), analyzing their motions, developing an understanding of the observational effects of Earth's own motion, and an introduction to the methods employed by astronomers to make new discoveries. Lab included. Lab fee: \$125.00.

AST 112 (4) The Cosmic System

ASTR 1110C (4) Introduction to Stellar and Galactic Astronomy

Stars, galaxies, and the structure of the universe are explored in this descriptive course. Starting with a review of the fundamentals of astronomy, the course then moves on to the formation, evolution, and death of stars. The course then continues with the nature of galaxies, galaxy evolution, current concepts in cosmology, and the large scale structure of the universe. Astronomy 1110 is a course designed for students having little or no background in astronomy or physics. The course focuses on interpretation of the nature of the universe based on modern observational techniques and the properties of light and matter. The course includes laboratory experiments concerning the nature of light, laws of motion, an introduction to the internet and computer simulations of data taking and analysis similar to current research in astronomy. Lab included. Lab fee: \$125.00.

BIOLOGY

BIO 110 (4) General Biology

BIOL 1110C (4) General Biology

This course introduces non-science majors to basic biological concepts including, but not limited to, the properties of life, biochemistry, cell biology, molecular biology, evolution, biodiversity, and ecology. Prerequisite: A grade of C or better in high school science/biology or satisfactory placement (IS 090). Lab included. Lab fee: \$125.00.

BIO 130 Human Anatomy & Physiology I

BIOL 1310C (4) Introduction to Human Anatomy and Physiology I

This introductory course is the first of two that covers the anatomy (structure) and physiology (function) of the human body, which includes the study of basic chemistry, molecules, cells, tissues, organs, organ systems, and terminology related to these concepts. Systems covered in this course include the integumentary, skeletal, muscle and nervous systems. This course is the first of two that introduces laboratory exercises in regards to human anatomy and physiology of the human body. This includes histological study, biochemical processes, mammal organ dissections, and the use of models to illustrate anatomical arrangement. Lab included. Lab fee: \$125.00.

~~BIO 131 (4) Human Anatomy and Physiology II~~

BIOL 1320C (4) Introduction to Human Anatomy and Physiology II

This introductory course is the second of two that covers the anatomy (structure) and physiology (function) of the human body including the endocrine, cardiovascular, lymphatic, digestive, respiratory, urinary and reproductive systems as well as terminology related to these topics. This course is the second of two that introduces laboratory exercises in regards to human anatomy and physiology of the human body. This includes histological study, biochemical processes, mammal organ dissections, and the use of models to illustrate anatomical arrangement. Lab included. Lab fee: \$125.00.

~~BIO 120 (4) Principles of Biology I~~

BIOL 2110C (4) Principles of Biology: Cellular and Molecular Biology

This course introduces students to major topics in general biology. It focuses on the principles of structure and function of living things at the molecular, cellular and organismic levels of organization. Major topics included are introduction to the scientific process, chemistry of cells, organization of cells, cellular respiration, photosynthesis, cell division, DNA replication, transcription, and translation. Lab included. Lab fee: \$125.00.

~~BIO 122 (4) Principles of Biology II~~

BIOL 2120C (4) Cellular and Molecular Biology

This course takes a detailed look at the principles of cellular biology with an emphasis on the structure, physiology, bioenergetics, cell division, and gene expression of microbe, plant, and animal cells. Major topics include the diversity of organic molecules and macromolecules, metabolism, cellular respiration, photosynthesis, cell division, DNA replication, and protein synthesis. Major modern research tools will also be explored. This course is intended for science majors. Lab included. Lab fee: \$125.00.

~~CHM 472 (4) Introduction to Biochemistry~~

BIOL 2130C (4) Introduction to Biochemistry

This introductory course will explore the major themes of biochemistry including the structure and function of the major classes of molecules found in biological organisms, the basic strategies for biochemical pathway regulation, the chemistry and regulation of energy metabolism, and the molecular basis of genetic information transfer. Lab included. Lab fee: \$125.00.

BIOL 225 (3) Medical Writing

This course is designed to provide students with the means for communicating their scientific knowledge according to biomedical conventions. Topics covered include: the scientific method, developing a literature search strategy, reading and writing scientific papers, instructions for preparing a laboratory report or scientific paper, examples of good laboratory reports, poster presentations, oral presentations, word processing in Microsoft Word, making graphs in Microsoft Excel, and preparing oral presentations with Microsoft PowerPoint.

~~BIO 224 (4) Microbiology~~

BIOL 2310C (4) Microbiology

Introduction to the basic principles of microbiology, microbial pathogenesis, host defenses and infectious diseases. The course will emphasize concepts related to the structure and function of microorganisms, including their mechanisms of metabolism and growth. Host parasite interactions will also be emphasized, including mechanisms of microbial pathogenesis and mechanisms of host defenses against infectious diseases. Lab will emphasize both the theory and hands on application of techniques used in a microbiology laboratory for the growth and identification of bacterial species. Students will learn microscopy skills and staining techniques for the observation of bacteria. Students will also learn aseptic techniques used for isolation of bacteria, inoculation of cultures, and interpretation of selective and differential growth media for the identification of bacterial species. Lab fee: \$125.00.

~~BIO 222 (4) General Botany~~

BIOL 2630C (4) General Botany

This course is an introduction to the fundamental principles of plant biology and botanical science. Topics covered include plant biochemistry, plant and fungal cell biology, plant reproduction, plant morphology and anatomy, plant physiology, plant genetics, plant ecology, archaean, bacterial, protistan, fungal and plant evolution. Lab will include an introduction to laboratory techniques dealing with plant biochemistry, plant, bacterial, and fungal cell biology, plant reproduction, plant morphology and anatomy, plant physiology, plant genetics, and plant evolution. Lab fee: \$125.00.

BUSINESS ADMINISTRATION

~~LAW 106 American Indian Law~~

BUSA 2420 Tribal Law

This course will examine the special relationship that exists between the federal government and tribal governments. It includes jurisdiction in Indian country, state tribal relations and tribal governing structures.

BUSINESS COMPUTER INFORMATION SYSTEMS

~~CMP 101 (3) Introduction to Computers~~

BCIS 1115 (3) Introduction to Computers

This is a lecture and hands-on course on different technologies commonly use in business and different agencies like computer, printer and other computer devices. It includes introduction to hardware, operating software, and MS Office applications like Excel, Word, Access, PowerPoint, Publisher, & other MS Office Tools. The class will include an overview of the history of technology and its future, as well as giving a fundamental introduction to industry-standard application software for word processing, spreadsheet, database management, and graphics. Basic computer use, files and file structure, windows, the Internet, programming, ethics, and security will also be addressed.

CHEMISTRY

~~CHEM 110 (4) Introduction to Chemistry (non-majors)~~

CHEM 1120C (4) Introduction to Chemistry

This course covers qualitative and quantitative areas of non-organic general chemistry for non-science majors and some health professions. Students will learn and apply principles pertaining, but not limited to, atomic and molecular structure, the periodic table, acids and bases, mass relationships, and solutions. Lab covers qualitative and quantitative areas of non-organic general chemistry for non-science majors and some health professions. Students will learn and apply principles pertaining, but not limited to, atomic and molecular structure, the periodic table, acids and bases, mass relationships, and solutions. The laboratory component introduces students to techniques for obtaining and analyzing experimental observations pertaining to chemistry using diverse methods and equipment. Lab fee: \$125.00.

~~CHEM 120 (4) General Chemistry I~~

CHEM 1217C (4) Principles of Chemistry I

As the first of a two-semester sequence, this course teaches fundamental concepts in chemistry, including the electronic structure of atoms, chemical periodicity, nature of chemical bonds, molecular structure, the three phases of matter, etc. In addition, the application of these concepts to various chemical sub-disciplines, such as organic chemistry, biochemistry, and materials chemistry. Designed for majors in chemical sciences and engineering, it is assumed that the students are familiar with college algebra, chemical nomenclature, stoichiometry, and scientific measurements. Lab introduces students to chemistry measurements, atomic structure, chemical reactions, stoichiometry, thermochemistry, quantum chemistry, periodic properties, atomic and electronic structures of atoms, and bonding. Lab fee: \$125.00.

~~CHM 122 (4) General Chemistry II~~

CHEM 1225C (4) General Chemistry II for STEM Majors

This course is intended to serve as a continuation of general chemistry principles for students enrolled in science, engineering, and certain preprofessional programs. The course includes, but is not limited to a theoretical and quantitative coverage of solutions and their properties, kinetics, chemical equilibrium, acids and bases, entropy and free energy, electrochemistry, and nuclear chemistry. Additional topics may include (as time permits) organic, polymer, atmospheric, and biochemistry. The laboratory component is designed to complement the theory and concepts presented in lecture, and will introduce students to techniques for obtaining and analyzing experimental observations pertaining to chemistry using diverse methods and equipment. Lab fee: \$125.00.

~~CHEM 468 (4) Organic Chemistry with Lab~~

CHEM 2130C (4) Organic Chemistry I

This course is the first of a two semester sequence of Organic Chemistry, the chemistry of carbon containing compounds, as required for chemistry, medical science, and engineering majors. The course includes theoretical, qualitative, and quantitative discussion of Organic Chemistry concepts, including but not limited to a review of electronic structure and bonding, acids and bases, stereochemistry, an introduction to organic compounds, isomers, substitution and elimination reactions of alkyl halides, reactions of alkenes, alkynes, alcohols, ethers, epoxides, amines, and thiols, mass and infrared spectrometry, ultraviolet/visible spectroscopy, and nuclear magnetic resonance.

~~CHEM 470 (5) Organic Chemistry II with Lab~~

CHEM 2135C (4) Organic Chemistry II

This course is the second of a two semester sequence of Organic Chemistry, the chemistry of carbon containing compounds, as required for chemistry, medical science, and engineering majors. The course will emphasize structure, main physical properties, chemical reactivity, and reaction mechanisms relating to alcohols, arenes and carbonyl compounds, as well as continued integration of mass and infrared spectrometry, ultraviolet/visible spectroscopy, and nuclear magnetic resonance technique and analysis.

~~CHEM 254 (4) Environmental Chemistry with Lab~~

CHEM 2325C (4) Environmental Chemistry

This course introduces students with a topics-based approach to chemistry of the environment. They are expected to have some knowledge of chemistry, with a desire of applying this knowledge to the environment. Topics of interest include environmental of water, water pollution, water treatment, geochemistry, atmospheric chemistry, air pollution, radioactivity, hazardous materials and resources. Lab included. Lab fee: \$125.00.

CHEM 286 (4) Inorganic Chemistry with Lab

Build a descriptive and theoretical framework for understanding inorganic systems. Advanced atomic structure and bonding theories will be applied to understanding the properties and reactions of inorganic compounds. Systematic presentation of properties and reactions of representative elements of the periodic table with application of chemical principles. Theories of electronic structure, stereochemistry, and symmetry properties of inorganic molecules. Prerequisite: CHEM 1217C. Lab included. Lab fee: \$125.00.

COMMUNICATIONS

~~COM 130 (3) Public Speaking~~

COMM 1130 (3) Public Speaking

This course introduces the theory and fundamental principles of public speaking, emphasizing audience analysis, reasoning, the use of evidence, and effective delivery. Students will study principles of communication theory and rhetoric and apply them in the analysis, preparation and presentation of speeches, including informative, persuasive, and impromptu speeches.

~~COM 195/295 (1-3) Topics in Communication~~

COMM 1996 (1-3) Topics in Communication

Specific subjects and credits to be announced in the Schedule of Classes.

~~COM 150 (3) Interpersonal Communication~~

COMM 2120 (3) Interpersonal Communication

This course provides an introduction to the study of interpersonal communication. Students will examine the application of interpersonal communication in personal and professional relationships.

COMM 2996 (1-3) Topics in Communication

Specific subjects and credits to be announced in the Schedule of Classes.

CRIMINAL JUSTICE

~~LAW 101 Introduction to Law~~

CJUS 1110 Introduction to Criminal Justice

This course provides an overall exploration of the historical development and structure of the United States criminal justice system, with emphasis on how the varied components of the justice system intertwine to protect and preserve individual rights. The course covers critical analysis of criminal justice processes and the ethical, legal, and political factors affecting the exercise of discretion by criminal justice professionals.

ECONOMICS

~~ECN 111 (3) Survey of Economics~~

ECON 1110 (3) Survey of Economics

This course will develop students' economics literacy and teaches students how economics relates to the everyday life of individuals, businesses and society in general. The course will also introduce students to the roles different levels of governments play in influencing the economy. At the conclusion of the course, students will be able to identify economic causes for various political and social problems at national and international levels, and have a better understanding of everyday economic issues that are reported in media and public forums.

~~ECN 202 (3) Principles of Macroeconomics~~

ECON 2110 (3) Macroeconomics Principles

Macroeconomics is the study of national and global economies. Topics include output, unemployment and inflation; and how they are affected by financial systems, fiscal and monetary policies.

~~ECN 201 (3) Principles of Microeconomics~~

ECON 2120 (3) Microeconomics Principles

This course will provide a broad overview of microeconomics. Microeconomics is the study of issues specific to households, firms, or industries with an emphasis on the role of markets. Topics discussed will include household and firm behavior, demand and supply, government intervention, market structures, and the efficient allocation of resources.

ENGLISH

~~ENG 110 (3) Freshman Composition~~

ENGL 1110 (3) Composition I

In this course, students will read, write, and think about a variety of issues and texts. They will develop reading and writing skills that will help with the writing required in their fields of study and other personal and professional contexts. Students will learn to analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading and writing. They will also gain an understanding of how writing and other modes of communication work together for rhetorical purposes. Students will learn to analyze the rhetorical context of any writing task and compose with purpose, audience, and genre in mind. Students will reflect on their own writing processes, learn to workshop drafts with other writers, and practice techniques for writing, revising, and editing.

~~ENG 111 (3) Composition and Research~~

ENGL 1120 (3) Composition II

In this course, students will explore argument in multiple genres. Research and writing practices emphasize summary, analysis, evaluation, and integration of secondary sources. Students will analyze rhetorical situations in terms of audience, contexts, purpose, mediums, and technologies and apply this knowledge to their reading, writing,

and research. Students will sharpen their understanding of how writing and other modes of communication work together for rhetorical purposes. The emphasis of this course will be on research methods.

ENG 105 (3) Applied Technical Writing

ENGL 1210 (3) Technical Communications

This is an introductory study of written and verbal communications used in the technical professions with emphasis in the planning, execution, and editing of professional and technical documents and other communication media.

COM 210 (3) Journalism

ENGL 1310 (3) Introduction to Journalism

This course is intended as an introduction to print and online journalism. The student is introduced to the journalistic style of writing, terms used in journalistic work, editing copy, as well as layout and design. Emphasis is also placed on examining complexities surrounding the media, particularly media ethics.

ENG 150 (3) Introduction to Literature

ENGL 1410 (3) Introduction to Literature

In this course, students will examine a variety of literary genres, including fiction, poetry, and drama. Students will identify common literary elements in each genre, understanding how specific elements influence meaning.

ENG 195/295 (1-3) Topics in English Studies

ENGL 1996 (1-3) Topics in English

Emphasis on a literary and/or writing subject chosen for the semester. Repeatable for an unlimited credit under different subtitles.

ENG 112 (3) Technical Research and Writing

ENGL 2210 (3) Professional and Technical Communication

Professional and Technical Communication will introduce students to the different types of documents and correspondence that they will create in their professional careers. This course emphasizes the importance of audience, document design, and the use of technology in designing, developing, and delivering documents. This course will provide students with experience in professional correspondence and communicating technical information to a non-technical audience.

ENG 155 (3) Creative Writing

ENGL 2310 (3) Introduction to Creative Writing

This course will introduce students to the basic elements of creative writing, including short fiction, poetry, and creative nonfiction. Students will read and study published works as models, but the focus of this "workshop" course is on students revising and reflecting on their own writing. Throughout this course, students will be expected to read poetry, fiction, and non-fiction closely, and analyze the craft features employed. They will be expected to write frequently in each of these genres.

ENG 201 (3) Beginning Fiction Writing

ENGL 2320 (3) Introduction to Fiction Writing

This course will introduce students to the basic elements of fiction writing. This course is a reading and "workshop" introduction to the fundamental working modes of fiction. Throughout this course, students will be expected to read classic and contemporary fiction closely and analyze the craft features employed. They will be expected to write frequently in various fiction genres throughout the course.

ENG 202 (3) Beginning Poetry Writing

ENGL 2330 (3) Introduction to Poetry Writing

This course will introduce students to the basic elements of poetry. This course is a reading and workshop introduction to the fundamental working modes of poetry. Students will be expected to read classic and contemporary poetry and analyze the craft features employed. In this course, students will read, write, and respond to poetry and develop their understanding of poetic conventions.

ENG 304 Creative Non-Fiction

ENGL 2340 Introduction to Creative Nonfiction Writing

This course will introduce students to the basic elements of creative nonfiction. This course is a reading and workshop introduction to the fundamental working modes of creative nonfiction. Throughout this course, students will be expected to read classic and contemporary works in the various genres of creative nonfiction and analyze the craft features employed. They will be expected to write frequently in these genres. Students will explore techniques of nonfiction such as prosody, exposition, descriptive detail, and narrative voice.

ENG 160 (3) Native American Literature

ENGL 2560 (3) Introduction to Native American Literature

This course will introduce students to the literature produced by Native American authors as well as explore issues relevant to the study of Native American literature. The course will also introduce the basic elements of literary analysis.

ENG 205 (3) Contemporary Navajo Literature

ENGL 2567 (3) Contemporary Navajo Literature

While the Navajo people have always had a deep appreciation for the power and beauty of language, as reflected in the songs, prayers and stories that have sustained them through untold generations, it is not until recently that a number of Navajos have begun to write and publish widely in a number of different genres. Some of those writers are now attracting critical attention and winning prestigious literary prizes. This course will introduce students to some of those Navajo writers and their works. Some of the major themes, issues, and concerns that these writers share as a focus of their work will be discussed, as well as the new and still-evolving role of the writer in contemporary Navajo culture.

ENG 161 (3) Comparative Ethnic Literature

ENGL 2650 (3) World Literature I

In this course, students will read representative world masterpieces from ancient, medieval, and Renaissance literature. Students will broaden their understanding of literature and their knowledge of other cultures through exploration of how literature represents individuals, ideas and customs of world cultures. The course focuses strongly on examining the ways literature and culture intersect and define each other.

ENGL 2996 (1-3) Topics in English

Emphasis on a literary and/or writing subject chosen for the semester. Repeatable for an unlimited credit under different subtitles.

ENVIRONMENTAL SCIENCE AND NATURAL RESOURCES

ENV 102 (4) Environmental Science I

ENVS 1110C (4) Environmental Science I

Introduction to environmental science as related to the protection, remediation, and sustainability of land, air, water, and food resources. Emphasis on the use of the scientific method and critical thinking skills in understanding environmental issues. Lab covers general principles and theory relating to environmental science and management. Focal areas for the course include: water management, climate, pollution and waste management. Students taking this course will come away with a basic. Lab fee: \$125.00.

ENV 182 Environmental Science II

ENVS 1120C (4) Environmental Science II

Provides a continuation of general principles and theory relating to environmental science and management. Focal areas for the course include: mining, energy production, mitigation of environmental problems, and topical matters relating to tribal communities. Students taking this course will build upon prior learning to develop an intermediate understanding of the main issues faced by technicians and managers of environmental science departments. Lab continues coverage of general principles and theory relating to environmental science with a focus on environmental testing. Focal areas for the course include: weather and climate, food production, ethics, and risk assessment. Students taking this course will come away with a basic understanding of the skills required of technicians and environmental science practitioners. Lab fee: \$125.00.

ENVS 1130C (4) The Blue Planet

To understand global change and environmental concerns, this course weaves together an understanding of Earth's systems, including the lithosphere, atmosphere hydrosphere, and biosphere. We will look at scientific approaches to understanding human interactions and impacts on Earth systems. Lab included. Lab fee: \$125.00.

ENVS 2111C (4) Environmental Engineering and Science

Principles in environmental engineering and science: physical chemical systems and biological processes as applied to pollution control. Lab included. Lab fee: \$125.00.

FILM & DIGITAL MEDIA

HUM 160 (3) Global Cinema

FDMA 2175 (3) International Cinema

A cinematic exploration of other nations, cultures and ways of perception. Films from around the world provide the basis for such topics as the historical development of a nation's cinema through the eyes of its leading directors; an in-depth focus on the works of a foreign filmmaker; a multi-cultural comparison of films thematically linked; and other subjects related to appreciating international cinema.

GEOLOGY

GEO 101 (4) Principles of Geology

GEOL 1110C (4) Physical Geology

Physical Geology is an introduction to our dynamic Earth introducing students to the materials that make up Earth (rocks and minerals) and the processes that create and modify the features of our planet. The course will help students learn how mountains are formed, how volcanoes erupt, where earthquakes occur, and how water, wind, and ice can shape the landscape. Students will also develop a basic understanding of the ways humans have altered the planet including our impact on natural resources and global climate change. In lab students will learn to identify rocks and minerals in hand samples, work with topographic maps, geologic maps, and geologic cross-sections, and apply stratigraphic principles to explore geologic time. Lab fee: \$125.00.

GEO 150 (4) Environmental Geology

GEOL 1120C (4) Environmental Geology

This course is a survey of environmental geology with an introduction to problems of pollution, population, human relations to the environment, resource use, geologic hazards and environmental problems. The course covers the major components of the Earth system, i.e. atmosphere, lithosphere, hydrosphere, and biosphere, and how they are related. Environmental Geology addresses the mechanisms that drive these Earth processes, how different parts of the Earth are connected, how matter and energy flow through our environment, and how humans fit into the environmental systems. Emphasis is placed on the use of the scientific method and the development of critical thinking skills in understanding environmental issues. Lab is an introduction to geologic materials and processes as applied to the human environment. Included are practical exercises with rocks, minerals, topographic and geologic maps, and water, mineral and energy resources. Hazards associated with natural processes will be evaluated. Lab fee: \$125.00.

HISTORY

HIS 210 (3) American History to 1877

HIST 1110 (3) United States History I

The primary objective of this course is to serve as an introduction to the history of the United States from the pre-colonial period to the immediate aftermath of the Civil War. The elements of this course are designed to inform students on the major events and trends that are essential in the understanding of the development of the United States within the context of world societies.

HIST 211 (3) American History from 1877 to Present

HIST 1120 (3) United States History II

The primary objective of this course is to serve as an introduction to the history of the United States from reconstruction to the present. The elements of this course are designed to inform students on the major events and

trends that are essential in the understanding of the development of the United States within the context of world societies.

HST 195/295 (1-3) Topics in History

HIST 1996 (1-3) Topics in History

Specific subjects to be announced in the Schedule of Classes.

HST 220 (3) History of the Southwest

HIST 2150 (3) History of the American Southwest

This course is designed to provide you with an overview of American History of the Southwest starting from the American acquisition of the Southwest to modern times. Major themes in American Southwestern history will be covered. Work will consist of reading our course textbooks and utilizing the internet resources. A research paper 5 pages double spaced will be required and due the last week of the semester. Thematically, this course will be divided into three parts.

HIST 2996 (1-3) Topics in History

Specific subjects to be announced in the Schedule of Classes.

HUMANITIES

HUM 170 (3) History of Native Americans in Media

HUMN 1180 (3) The History of Native Americans in Media

This course is designed to allow students to examine the careers and lives of Native Americans with a focus on the history of Native Americans in Media. Media is a word which encompasses a broad range of topics. Students will explore issues through film, the spoken word, the written word and live performance which may be relevant to the historical significance of how Native Americans are viewed. This includes contemporary fiction/non-fiction writings, filmmaking and acting, theater performances, musical and spoken word recordings, and radio and television broadcasting with an emphasis on Native Language Revitalization. In addition, the course will attempt to broaden the student's ability to analyze and evaluate oral and written communication in terms of situation, audience, purpose, aesthetics and diverse points of view, while exploring the voices of North American Indigenous Peoples.

HUM 195/295 Topics in Humanities

HUMN 1996 (1-3) Topics in Humanities

Specific subjects to be announced in the Schedule of Classes.

HUMN 2996 (1-3) Topics in Humanities

Specific subjects to be announced in the Schedule of Classes.

MATHEMATICS

MATH 1110 (3) Math for Teachers I

Investigates the representation of rational numbers and rational number arithmetic, including base ten and decimal numbers, fractions, and arithmetic operations on these sets. Connections to basic geometric concepts are included. Explanation and problem solving is emphasized throughout.

MATH 1115 (3) Math for Teachers II

Develops basic geometric concepts including rigid transformations and congruence; dilations and similarity; length, area and volume; systems of measurement and unit conversions; and connections to coordinate geometry. Explanation and problem solving is emphasized throughout.

MTH 118 Intro/Intermediate Algebra

MATH 1215 (4) Intermediate Algebra

A study of linear and quadratic functions, and an introduction to polynomial, absolute value, rational, radical, exponential, and logarithmic functions. A development of strategies for solving single-variable equations and contextual problems.

MTH 121 (4) College Algebra

MATH 1220 (4) College Algebra

The study of equations, functions and graphs, reviewing linear and quadratic functions, and concentrating on polynomial, rational, exponential and logarithmic functions. Emphasizes algebraic problem solving skills and graphical representation of functions.

MTH 123 (4) Trigonometry

MATH 1230 (4) Trigonometry

A study of plane trigonometry including the definitions of the fundamental trig functions using right angle triangle and unit circle approaches. Trig functions of any real number will be evaluated and the functions graphed along with their transformations. Trigonometric identities will be developed and demonstrated including multiple angle identities and identities developed from them. Inverse Trigonometric functions will be developed and used to solve trigonometric equations. Trigonometric applications will be solved using right angle trigonometry and the laws of sines and cosines. Trigonometric methods will be applied to complex numbers and the use of 2D vectors and vector dot products.

MTH 150 (4) Pre-Calculus

MATH 1240 (4) Pre-Calculus

This course extends students' knowledge of polynomial, rational, exponential and logarithmic functions to new contexts, including rates of change, limits, systems of equations, conic sections, and sequences and series.

MTH 213 (3) Elementary Statistics

MATH 1350 (3) Introduction to Statistics

This course discusses the fundamentals of descriptive and inferential statistics. Students will gain introductions to topics such as descriptive statistics, probability and basic probability models used in statistics, sampling and statistical inference, and techniques for the visual presentation of numerical data. These concepts will be illustrated by examples from a variety of fields.

MTH 162 (4) Calculus I

MATH 1510 (4) Calculus I

Introduces the intuitive, numerical and theoretical concepts of limits, continuity, differentiation and integration. Includes the study of extrema, curve sketching, and applications involving algebraic, exponential, logarithmic and trigonometric functions. Designed for mathematics, science and engineering majors.

MTH 163 (4) Calculus II

MATH 1520 (4) Calculus II

Continues course of study begun in Calculus I. Covers integration techniques, numerical integration, improper integrals, some differential equations, sequences, series and applications.

NAVAJO/ DINÉ STUDIES

NAV 101 Intro to Navajo Language (Conversation)

NAVA 1110 (4) Navajo I

The purpose of this beginning class is to develop listening, speaking, reading and writing skills to communicate at an elementary level. The course will use a communicative approach for students to learn about the fundamentals of vocabulary, grammar, conversation, and Navajo cultures.

NAV 102 Intro to Navajo Language (Reading/Writing)

NAVA 1120 (4) Navajo II

Navajo II is a continuation of Navajo I. The purpose of this course is to enhance speaking, reading and writing of Navajo. The course will use a communicative approach for students to learn and utilize more complex vocabulary and grammar for reading, writing, and conversing in the language.

NAV 105 (3) Navajo Cultural Arts

NAVA 1210 (3) Navajo Cultural Arts

This course introduces students to Navajo Cultural Arts through explorations of Diné history, philosophy, and lifeways. Lectures and in-class demonstrations offer tools for sash belt weaving, basketry, and moccasin making. The course culminates in projects that require students to demonstrate their technical and artistic expertise.

~~NAV 103 (3) Introduction to Navajo Weaving~~

NAVA 1310 (3) Navajo Rug Weaving I

Introduction to the processes and techniques of Navajo weaving, including preparation of the wool, setting up the loom and warp, weaving techniques, and design elements. Basic origin stories and the history of Navajo rug weaving will also be covered.

~~NAV 115 (3) Intermediate Navajo Weaving~~

NAVA 1320 (3) Navajo Rug Weaving II

Continuation of ARTS 1270 which will include further development of the processes and techniques of Navajo weaving, with a special emphasis on advanced weaving techniques and design.

~~NAV 120 (3) Advanced Navajo Weaving~~

NAVA 1330 (3) Navajo Rug Weaving III

Continuation of ARTS 1270 and ARTS 2270 which will include further development of the processes and techniques of Navajo weaving, with a continued emphasis on advanced weaving techniques and design.

~~NAV 195/295 Topics in Diné Studies~~

NAVA 1996 (1-3) Topics in Diné Studies

Specific subjects to be announced in the Schedule of Classes.

~~NAV 110 (3) Foundations of Navajo Culture~~

NAVA 2210 (3) Navajo Culture

Introduces the basic values of Diné Society, past and present, including the clan system, the philosophy of duality, rites and passages, and the Navajo creation story.

~~NAV 211 Navajo History~~

NAVA 2220 (3) Navajo History

Introduces the history and culture of the Navajo people from the earliest times to the present. The course will examine cultural change, the interaction of the Navajo with other native groups and especially with European peoples.

~~NAV 221 (3) Navajo Government~~

NAVA 2230 (3) Navajo Government

This course is a study of the history, nature, organization, and operation of Navajo tribal government. It concentrates on the evolution of Navajo tribal government since its beginning in the 1920's, and examines the legal and political basis for, and the functions of, Navajo tribal government today.

~~NAV 225 (3) Dine Philosophy of Education~~

NAVA 2240 (3) Diné Philosophy of Education

Examines Dine philosophical thought regarding metaphysics, epistemology, aesthetics, ethics, religion, and traditional social structure.

~~NAVA 2996 (1-3) Topics in Diné Studies~~

Specific subjects to be announced in the Schedule of Classes.

PHYSICAL EDUCATION

~~PED 120 (1) Strength Training~~

PHED 1620 (1) Fitness

Individual sections vary based on topic content; “audience”; type or level of participation.

~~PED 130 (1) Jogging~~

PHED 1830 (1) Running

Individual sections vary based on topic content; “audience”; type or level of participation.

PHYSICS

~~PHY 101 (4) Introduction to Physics~~

PHYS 1115C (4) Survey of Physics

Overview of the concepts and basic phenomena of physics. This course provides a largely descriptive and qualitative treatment with a minimum use of elementary mathematics to solve problems. No previous knowledge of physics is assumed. Includes lab. Lab fee: \$125.00.

~~PHY 111 (4) Algebra-Based Physics I~~

PHYS 1230C (4) Algebra-Based Physics I

An algebra-based treatment of Newtonian mechanics. Topics include kinematics and dynamics in one and two dimensions, conservation of energy and momentum, rotational motion, equilibrium, and fluids. Lab includes a series of experiments associated with the material presented in PHYS 1230. Lab fee: \$125.00.

~~PHY 112 (4) Algebra-Based Physics II~~

PHYS 1240C (4) Algebra-Based Physics II

The second half of a two semester algebra-based introduction to Physics. This course covers electricity, magnetism and optics. A series of laboratory experiments associated with the material is presented.

Pre- or co-requisite: PHYS 1240 Algebra-based Physics II. Lab fee: \$125.00.

~~PHY 121 (4) Calculus-Based Physics I~~

PHYS 1310C (4) Calculus-Based Physics I

A calculus-level treatment of classical mechanics and waves, which is concerned with the physical motion concepts, forces, energy concepts, momentum, rotational motion, angular momentum, gravity, and static equilibrium. A series of laboratory experiments associated with the material is presented in lab. Pre- or co-requisite: Calculus I. Lab fee: \$125.00.

~~PHY 122 (4) Calculus-Based Physics II~~

PHYS 1320C (4) Calculus-Based Physics II

A calculus-level treatment of classical electricity and magnetism. It is strongly recommended that this course is taken at the same time as Calculus-based Physics II laboratory. A series of laboratory experiments associated with the material is presented in lab. Pre- or co-requisite: Calculus II. Lab fee: \$125.00.

PSYCHOLOGY

~~PSY 105 (3) Introduction to Psychology~~

PSYC 1110 (3) Introduction to Psychology

This course will introduce students to the concepts, theories, significant findings, methodologies, and terminology that apply to the field of psychology.

~~PSY 210 (3) Developmental Psychology~~

PSYC 2120 (3) Developmental Psychology

Study of human physical and psychological change and stability from a lifespan development perspective.

~~PSY 195/295 (1-3) Topics in Psychology~~

PSYC 1996 (1-3) Topics in Psychology

Varies.

PSYC 2996 (1-3) Topics in Psychology

Varies.

~~SCIENCE~~ (Propose to Curriculum Committee: Delete from NTU catalog - Roy & Steve)

~~SCI 101 (4) Physical Science~~ (Propose to Curriculum Committee: Delete from NTU catalog - Roy & Steve)
~~SCI 195/295 Topics in Science~~ (Propose to Curriculum Committee: Delete from NTU catalog - Roy & Steve)

SOCIAL SCIENCE

~~SSC 195/295 (1-3) Topics in Sociology~~

SOSC 1996 (1-3) Topics in Behavioral and Social Sciences

Specific subjects to be announced in the Schedule of Classes.

SOSC 2996 (1-3) Topics in Behavioral and Social Sciences

Specific subjects to be announced in the Schedule of Classes.

SOCIOLOGY

~~SOC 101 (3) Introduction to Sociology~~

SOCI 1110 (3) Introduction to Sociology

This course will introduce students to the basic concepts and theories of sociology, as well as to the methods utilized in sociological research. The course will address how sociological concepts and theories can be utilized to analyze and interpret our social world, and how profoundly our society and the groups to which students belong influence them. Students will be given the opportunity to challenge their “taken for granted” or “common sense” understandings about society, social institutions, and social issues. Special attention will also be paid to the intimate connections between their personal lives and the larger structural features of social life. In addition, the implications of social inequalities, such as race/ethnicity, gender, and social class will be central to the course’s examination of social life in the United States.

~~SOC 210 (3) Sociology and Social Problems~~

SOCI 2310 (3) Contemporary Social Problems

This course studies the nature, scope, and effects of social problems and their solutions. The course will concentrate on sociological perspectives, theories, and key concepts when investigating problems, such as inequality, poverty, racism, alienation, family life, sexuality, gender, urbanization, work, aging, crime, war and terrorism, environmental degradation, and mass media. This course is designed to build students’ sociological understanding of how sociological approaches attempt to clarify various issues confronting contemporary life, as well as how sociologists view solutions to these problems.

~~SOC 195/295 (1-3) Topics in Sociology~~

SOCI 1996 (1-3) Topics in Sociology

Specific subjects to be announced in the Schedule of Classes.

SOCI 2996 (1-3) Topics in Sociology

Specific subjects to be announced in the Schedule of Classes.

SUSTAINABILITY

SUST 1134C (4) Introduction to Sustainability Studies

This course provides a broad survey of various aspects of sustainability. Students will explore topics such as climate change, renewable energy, water, agriculture, green building, socially responsible business, micro lending, environmental justice, smart growth and alternative progress indicators. Students will examine both contemporary challenges to sustainable development and examples of successful sustainability initiatives on local, national, and global levels. Lab included. Lab fee: \$125.00.

ZUNI STUDIES

~~ZUN 101 (3) Introduction to Zuni Language~~

ZUNI 1110 (3) Introduction to Zuni

This course is designed help individuals develop basic conversational skills in Shiwi listening and speaking.