Winter 2023 General Education Courses

NATURAL SCIENCE

Courses designed for non-science majors are noted with a double asterisk (**)

BIOLOGY

****COGS 17. Neurobiology of Cognition (4)**

Introduction to the organization and functions of the nervous system. Topics include molecular, cellular, developmental, systems, and behavioral neurobiology. Specifically, structure and function of neurons, peripheral and central nervous systems, sensory, motor, and control systems, learning and memory mechanisms. Students may not receive credit for both BILD12 and COGS 17.

BILD 1. The Cell (4)

An introduction to cellular structure and function, to biological molecules, bioenergetics, to the genetics of both prokaryotic and eukaryotic organisms, and to the elements of molecular biology. Recommended preparation: prior completion of high school- or college-level chemistry course.

BILD 2. Multicellular Life (4)

An introduction to the development and the physiological processes of plants and animals. Included are treatments of reproduction, nutrition, respiration, transport systems, regulation of the internal environment, the nervous system, and behavior. *Prerequisites:* BILD 1.

BILD 3. Organismic and Evolutionary Biology (4)

The first principles of evolutionary theory, classification, ecology, and behavior; a phylogenetic synopsis of the major groups of organisms from viruses to primates.

****BILD 12. Neurobiology and Behavior (4)**

Introduction to the organization and functions of the nervous system; topics include molecular, cellular, developmental, systems, and behavioral neurobiology. This course is designed for nonbiology students and does not satisfy a lower-division requirement for any biology major. Open to nonbiology majors only. **Note:** Students may not receive credit for both BILD 12 and COGS 17.

**** BILD 22. Human Nutrition (4)**

A survey of our understanding of the basic chemistry and biology of human nutrition; discussions of all aspects of food: nutritional value, diet, nutritional diseases, public health, and public policy. This course is designed for nonbiology students and does not satisfy a lower-division requirement for any biology major. Open to nonbiology majors only. **Note:** Students may not receive credit for BILD 22 after receiving credit for BIBC 120.

****BILD 38. Dementia, Science, and Society (4)**

Introduction to basic human neuroscience leading to a discussion of brain diseases classified under the rubric Dementia. Topics include basic brain structure and function, diseases of the aging brain and their economic, social, political and ethical impacts on society.

****BILD 46. Ecology of a Changing Planet (4)**

Biodiversity is changing worldwide in response to global changes. What do these changes in biodiversity foretell for the continued provisioning of ecosystem services on which humans depend? How can we develop conservation and management strategies that preserve biodiversity, backed up by sound science? These are some of the most important questions of our time. Topics will be presented at an introductory level appropriate for students in all majors. Students will not receive credit if taken after BIEB 182.

NATURAL SCIENCE (cont.)

Courses designed for non-science majors are noted with a double asterisk (**)

CHEMISTRY

CHEM 6A. General Chemistry I (4)

First quarter of a three-quarter sequence intended for science and engineering majors. Topics include atomic theory, bonding, molecular geometry, stoichiometry, types of reactions, and thermochemistry. May not be taken for credit after CHEM 6AH. Recommended: proficiency in high school chemistry and/or physics. *Corequisite:* MATH 10A or 20A or prior enrollment.

CHEM 6B. General Chemistry II (4)

Second quarter of a three-quarter sequence intended for science and engineering majors. Topics include covalent bonding, gases, liquids, and solids, colligative properties, physical and chemical equilibria, acids and bases, solubility. May not be taken for credit after CHEM 6BH. *Prerequisites:* CHEM 6A or 6AH and MATH 10A or 20A. Recommended: concurrent or prior enrollment in MATH 10B or 20B.

CHEM 6BH. Honors General Chemistry II (4)

Second quarter of a three-quarter honors sequence intended for well-prepared science and engineering majors. Topics include colligative properties, bulk material properties, chemical equilibrium, acids and bases, and thermodynamics. Three hour lecture and one hour recitation. May be taken for credit after credit for CHEM 6B. Students completing 6BH may not subsequently take 6B for credit. ***Prerequisites:*** CHEM 6AH and MATH 20A. Recommended: concurrent or prior enrollment in MATH 20B.

CHEM 6C. General Chemistry III (4)

Third quarter of a three-quarter sequence intended for science and engineering majors. Topics include thermodynamics, kinetics, electrochemistry, coordination chemistry, and introductions to nuclear, main group organic, and biochemistry. May not be taken for credit after CHEM 6CH. *Prerequisites:* CHEM 6B or 6BH. Recommended: completion of MATH 10B or 20B.

****CHEM 11. The Periodic Table (4)**

Introduction to the material world of atoms and small inorganic molecules. Intended for nonscience majors. Students may not receive credit for both CHEM 4 and CHEM 11.

PHYSICS

PHYS 1A. Mechanics (3)

First quarter of a three-quarter introductory physics course, geared toward life-science majors. Equilibrium and motion of particles in one and two dimensions in the framework of Newtonian mechanics, force laws (including gravity), energy, momentum, rotational motion, conservation laws, and fluids. Examples will be drawn from astronomy, biology, sports, and current events. PHYS 1A and 1AL are designed to be taken concurrently but may be taken in separate terms; taking the lecture before the lab is the best alternative to enrolling in both. Students continuing to PHYS 1B/1BL will also need MATH 10B or 20B. *Prerequisites:* MATH 10A or 20A. Recommended preparation: concurrent or prior enrollment in MATH 10B or 20B.

NATURAL SCIENCE (cont.)

Courses designed for non-science majors are noted with a double asterisk (**)

PHYSICS

PHYS 1AL. Mechanics Laboratory (2)

Physics laboratory course to accompany PHYS 1A. Experiments in Mechanics. PHYS 1A and 1AL are designed to be taken concurrently but may be taken in separate terms; taking the lecture before the lab is the best alternative to enrolling in both. Students continuing to PHYS 1B/1BL will also need MATH 10B or 20B. *Prerequisites:* MATH 10A or 20A. Recommended preparation: concurrent or prior enrollment in PHYS 1A and MATH 10B or 20B.

PHYS 1B. Electricity and Magnetism (3)

Second quarter of a three-quarter introductory physics course geared toward life-science majors. Electric fields, magnetic fields, DC and AC circuitry. PHYS 1B and 1BL are designed to be taken concurrently but may be taken in separate terms; taking the lecture before the lab is the best alternative to enrolling in both. *Prerequisites:* PHYS 1A or 2A, and MATH 10B or 20B.

PHYS 1BL. Electricity and Magnetism Laboratory (2)

Physics laboratory course to accompany PHYS 1B. Experiments in electricity and magnetism. Program or materials fee may apply. PHYS 1B and 1BL are designed to be taken concurrently but may be taken in separate terms; taking the lecture before the lab is the best alternative to enrolling in both. *Prerequisites:* PHYS 1A or 2A, 1AL or 2BL, and MATH 10B or 20B. Recommended preparation: concurrent or prior enrollment in PHYS 1B.

PHYS 1C. Waves, Optics, and Modern Physics (3)

Third quarter of a three-quarter introductory physics course geared toward life-science majors. The physics of oscillations and waves, vibrating strings and sound, and the interaction of light with matter as illustrated through optics and quantum mechanics. Examples from biology, sports, medicine, and current events. PHYS 1C and 1CL are designed to be taken concurrently but may be taken separately; taking the lecture before the lab is the best alternative to enrolling in both. P*rerequisites:* PHYS 1B or 2B, and MATH 10B or 20B.

PHYS 1CL. Waves, Optics, and Modern Physics Laboratory (2)

Physics laboratory course to accompany PHYS 1C. Experiments in waves, optics, and modern physics. Program or materials fee may apply. PHYS 1C and 1CL are designed to be taken concurrently but may be taken in separate terms; taking the lecture before the lab is the best alternative to enrolling in both. *Prerequisites:* PHYS 1B or 2B, 1BL or 2CL, and MATH 10B or 20B. Recommended preparation: concurrent or prior enrollment in PHYS 1C.

PHYS 2A. Physics—Mechanics (4)

A calculus-based science-engineering general physics course covering vectors, motion in one and two dimensions, Newton's first and second laws, work and energy, conservation of energy, linear momentum, collisions, rotational kinematics, rotational dynamics, equilibrium of rigid bodies, oscillations, gravitation. Students continuing to PHYS 2B/4B will also need MATH 20B. *Prerequisites:* MATH 10A-B or 20A or 20B or 20C or 31BH. Recommended preparation: prior or concurrent enrollment in MATH 20B.

NATURAL SCIENCE (cont.)

Courses designed for non-science majors are noted with a double asterisk (**)

PHYSICS GE

PHYS 2B. Physics—Electricity and Magnetism (4)

Continuation of PHYS 2A covering charge and matter, the electric field, Gauss's law, electric potential, capacitors and dielectrics, current and resistance, electromotive force and circuits, the magnetic field, Ampere's law, Faraday's law, inductance, electromagnetic oscillations, alternating currents and Maxwell's equations. Students continuing to PHYS 2C will also need MATH 20C or 31BH. *Prerequisites:* PHYS 2A or 4A and MATH 20B or 20C or 31BH. Recommended preparation: prior or concurrent enrollment in MATH 20C or 31BH.

PHYS 2C. Physics—Fluids, Waves, Thermodynamics, and Optics (4)

Continuation of PHYS 2B covering fluid mechanics, waves in elastic media, sound waves, temperature, heat and the first law of thermodynamics, kinetic theory of gases, entropy and the second law of thermodynamics, Maxwell's equations, electromagnetic waves, geometric optics, interference and diffraction. Students continuing to PHYS 2D will need MATH 20D. *Prerequisites:* PHYS 2A or 4A, and MATH 20C or 31BH. Recommended preparation: prior or concurrent enrollment in MATH 20D. Prior completion of PHYS 2B is strongly recommended.

PHYS 4C. Physics for Physics Majors—Electricity and Magnetism (4)

Continuation of PHYS 4B covering charge and Coulomb's law, electric field, Gauss's law, electric potential, capacitors and dielectrics, current and resistance, magnetic field, Ampere's law, Faraday's law, inductance, AC circuits. ***Prerequisites:*** PHYS 4A-B, MATH 20A-B-C or 31BH, and 18 or 20F or 31AH. Recommended preparation: prior or concurrent enrollment in MATH 20E or 31CH.

****PHYS 5. Stars and Black Holes (4)**

An introduction to the evolution of stars, including their birth and death. Topics include constellations, the atom and light, telescopes, stellar birth, stellar evolution, white dwarfs, neutron stars, black holes, and general relativity. This course uses basic algebra, proportion, radians, logs, and powers. PHYS 5, 7, 9, and 13 form a four-quarter sequence and can be taken individually in any order.

****SIO 1. The Planets (4)**

Space exploration has revealed an astonishing diversity among the planets and moons in our solar system. The planets and their histories will be compared to gain insight and a new perspective on planet Earth. ***Prerequisites:*** none.

****SIO 20. The Atmosphere (4)**

Descriptive introduction to meteorology and climate studies. Topics include global and wind and precipitation patterns, weather forecasting, present climate and past climate changes (including droughts, El Niño events), greenhouse gas effects, ozone destruction, the "little ice age," acid rain. ***Prerequisites:*** none.

****SIO 45. Volcanoes (4)**

This class will provide students with an introduction to volcanoes, including the mechanisms, products, and hazards associated with various types of volcanic eruptions. A key area of emphasis will be the impact of volcanism on human societies. ***Prerequisites:*** none.

Winter 2023 General Education Courses

MATHEMATICS, STATISTICS AND LOGIC

MATHEMATICS, ADVANCED STATISTICS

MATH 3C. Precalculus (4)
Functions and their graphs. Linear and polynomial functions, zeroes, inverse functions, exponential and logarithmic, trigonometric functions and their inverses. Emphasis on understanding algebraic, numerical and graphical approaches making use of graphing calculators. (No credit given if taken after MATH 4C, 1A/10A, or 2A/20A.) Three or more years of high school mathematics or equivalent recommended. *Prerequisites:* Math Placement Exam qualifying score, or ACT Math score of 22 or higher, or SAT Math score of 600 or higher.

MATH 4C. Precalculus for Science and Engineering (4)
Review of polynomials. Graphing functions and relations: graphing rational functions, effects of linear changes of coordinates. Circular functions and right triangle trigonometry. Reinforcement of function concept: exponential, logarithmic, and trigonometric functions. Vectors. Conic sections. Polar coordinates. (No credit given if taken after MATH 1A/10A or 2A/20A. Two units of credit given if taken after MATH 3C.) Three or more years of high school mathematics or equivalent recommended. *Prerequisites:* Math Placement Exam qualifying score, or MATH 3C, or ACT Math score of 25 or higher, or AP Calculus AB score (or subscore) of 2.

MATH 10A. Calculus I (4)
Differential calculus of functions of one variable, with applications. Functions, graphs, continuity, limits, derivatives, tangent lines, optimization problems (No credit given if taken after or concurrent with MATH 20A). *Prerequisites:* Math Placement Exam qualifying score, or AP Calculus AB score of 2, or SAT II Math Level 2 score of 600 or higher, or MATH 3C, or MATH 4C.

MATH 10B. Calculus II (4)
Integral calculus of functions of one variable, with applications. Antiderivatives, definite integrals, the Fundamental Theorem of Calculus, methods of integration, areas and volumes, separable differential equations. (No credit given if taken after or concurrent with MATH 20B.) *Prerequisites:* AP Calculus AB score of 3, 4, or 5 (or equivalent AB subscore on BC exam), or MATH 10A, or MATH 20A.

MATH 10C. Calculus III (4)
Introduction to functions of more than one variable. Vector geometry, partial derivatives, velocity and acceleration vectors, optimization problems. (No credit given if taken after or concurrent with 20C.)
Prerequisites: AP Calculus BC score of 3, 4, or 5, or MATH 10B, or MATH 20B.

MATH 11. Calculus-Based Introductory Probability and Statistics (5)
Events and probabilities, conditional probability, Bayes' formula. Discrete and continuous random variables: mean, variance; binomial, Poisson distributions, normal, uniform, exponential distributions, central limit theorem. Sample statistics, confidence intervals, hypothesis testing, regression. Applications. Introduction to software for probabilistic and statistical analysis. Emphasis on connections between probability and statistics, numerical results of real data, and techniques of data analysis. *Prerequisites:* AP Calculus BC score of 3, 4, or 5, or MATH 10B or MATH 20B.

MATHEMATICS, STATISTICS AND LOGIC (cont.)

MATHEMATICS, ADVANCED STATISTICS

MATH 20A. Calculus for Science and Engineering (4)
Foundations of differential and integral calculus of one variable. Functions, graphs, continuity, limits, derivative, tangent line. Applications with algebraic, exponential, logarithmic, and trigonometric functions. Introduction to the integral. (Two credits given if taken after MATH 1A/10A and no credit given if taken after MATH 1B/10B or MATH 1C/10C. Formerly numbered MATH 2A.) *Prerequisites:* Math Placement Exam qualifying score, or AP Calculus AB score of 3 (or equivalent AB subscore on BC exam), or SAT II MATH 2C score of 650 or higher, or MATH 4C or MATH 10A.

MATH 20B. Calculus for Science and Engineering (4)
Integral calculus of one variable and its applications, with exponential, logarithmic, hyperbolic, and trigonometric functions. Methods of integration. Infinite series. Polar coordinates in the plane and complex exponentials. (Two units of credits given if taken after MATH 1B/10B or MATH 1C/10C.) *Prerequisites:* AP Calculus AB score of 4 or 5, or AP Calculus BC score of 3, or MATH 20A with a grade of C– or better, or MATH 10B with a grade of C– or better, or MATH 10C with a grade of C– or better.

MATH 20C. Calculus and Analytic Geometry for Science and Engineering (4)
Vector geometry, vector functions and their derivatives. Partial differentiation. Maxima and minima. Double integration. (Two units of credit given if taken after MATH 10C. Credit not offered for both MATH 20C and 31BH.) *Prerequisites:* AP Calculus BC score of 4 or 5, or MATH 20B with a grade of C– or better.

MATH 180A. Introduction to Probability (4)
Probability spaces, random variables, independence, conditional probability, distribution, expectation, variance, joint distributions, central limit theorem. (Two units of credit offered for MATH 180A if ECON 120A previously, no credit offered if ECON 120A concurrently. Two units of credit offered for MATH 180A if MATH 183 or 186 taken previously or concurrently.) Prior or concurrent enrollment in MATH 109 is highly recommended. *Prerequisites:* Math 20C or MATH 31BH, or consent of instructor.

MATH 181A. Introduction to Mathematical Statistics I (4)
Multivariate distribution, functions of random variables, distributions related to normal. Parameter estimation, method of moments, maximum likelihood. Estimator accuracy and confidence intervals. Hypothesis testing, type I and type II errors, power, one-sample t-test. Prior or concurrent enrollment in MATH 109 is highly recommended. ***Prerequisites:*** MATH 180A, and MATH 18 or MATH 20F or MATH 31AH, and MATH 20C. Students who have not completed listed prerequisites may enroll with consent of instructor.

INTRODUCTORY STATISTICS

COGS 14A. Introduction to Research Methods (4)
Introduction to the scientific method. Methods of knowledge acquisition, research questions, hypotheses, operational definitions, variables, control. Observation, levels of measurement, reliability, validity. Experimentation and design: between-groups, within-subjects, quasi-experimental, factorial, single-subject. Correlational and observational studies. Ethics in research.

MATHEMATICS, STATISTICS AND LOGIC (cont.)

INTRODUCTORY STATISTICS

HDS 60. Introduction to Statistical Analysis (4)
This course provides an introduction to both descriptive and inferential statistics, core tools in the process of scientific discovery, and the interpretation of research. Emphasis on a conceptual understanding of statistics, numerical results of real data, and techniques of data analysis.

POLI 30 or 30D. Political Inquiry (4)
Introduction to the logic of inference in social science and to quantitative analysis in political science and public policy including research design, data collection, data description and computer graphics, and the logic of statistical inference (including linear regression). POLI 30 is Lecture only, and POLI 30D is Lecture plus Discussion section. These courses are equivalents of each other in regards to major requirements, and students may not receive credit for both 30 and 30D.

PSYC 60. Introduction to Statistics (4)
This course provides an introduction to both descriptive and inferential statistics, core tools in the process of scientific discovery and the interpretation of research.

SOCI 60. The Practice of Social Research (4)
This course introduces students to the fundamental principles of the design of social research. It examines the key varieties of evidence, sampling methods, logic of comparison, and causal reasoning researchers use in their study of social issues. Will not receive credit for SOCI 60 and SOCL 60.

COMPUTER PROGRAMMING AND LOGIC

CSE 8A. Introduction to Programming and Computational Problem-Solving I (4)
Introductory course for students interested in computer science and programming. Basics of programming including variables, conditionals, loops, functions/methods. Structured data storage such as arrays/lists and dictionaries, including data mutation. Hands-on experience with designing, writing, hand-tracing, compiling or interpreting, executing, testing, and debugging programs. Students solve relevant computational problems using a high-level programming language. CSE 8A is part of a two-course sequence (CSE 8A-B) that is equivalent to CSE 11. Students should take CSE 8B to complete this track. Students who have taken CSE 8B or CSE 11 may not take or receive credit for CSE 8A. Recommended preparation: No prior programming experience is assumed, but comfort using computers is helpful. Students should consult the CSE Course Placement Advice web page for assistance in choosing which CSE course to take first. *Prerequisites:* restricted to undergraduates. Graduate students will be allowed as space permits.

BILD 62. Introduction to Python for Biologists (4)
Introductory class for biology students interested in using Python for data analysis and visualization. Course covers the basics of programming in Python and introduces students to various implementations of Python analyses for biological data such as time series and images. Students will use their own laptops. Students may receive credit for one of the following: BILD 62, COGS 18, CSE 6R, or CSE 8A.

MATHEMATICS, STATISTICS AND LOGIC (cont.)

COMPUTER PROGRAMMING AND LOGIC

COGS 18. Introduction to Python (4)
This class will teach fundamental Python programming skills and practices, including the "Zen of Python." Students will focus on scientific computing and learn to write functions and tests, as well as how to debug code using the Jupyter Notebook programming environment. Students may receive credit for one of the following: COGS 18, CSE 8A, or CSE 6R. Recommended preparation: students with limited computing experience may take COGS 3.

CSE 11. Introduction to Programming and Computational Problem-Solving: Accelerated Pace (4)
Accelerated introductory programming including an object-oriented approach. Covers basic programming topics from CSE 8A including variables, conditionals, loops, functions/methods, structured data storage, and mutation. Also covers topics from CSE 8B including the Java programming language, class design, interfaces, basic class hierarchies, recursion, event based programming, and file I/O. Basics of command-line navigation for file management and running programs. Zero units of credit offered for CSE 11 if CSE 8B taken previously or concurrently. Recommended preparation: Significant prior programming experience (for example, high school AP CSA). Students should consult the CSE Course Placement Advice web page for assistance in choosing a first CSE course. *Prerequisites:* restricted to undergraduates. Graduate students will be allowed as space permits.

CSS 1. Introductory Programming for Computational Social Science (4)
This course develops computational thinking practices and skills critical for defining, describing, and analyzing social science problems using a computational approach. Students will learn to program in Python in the context of computational social science problems.

LING 17. Making and Breaking Codes (4)
A rigorous analysis of symbolic systems and their interpretations. Students will learn to encode and decode information using progressively more sophisticated methods; topics covered include ancient and modern phonetic writing systems, hieroglyphics, computer languages, and ciphers (secret codes). *Prerequisites:* none.

PHIL 10. Introduction to Logic (4)
Basic concepts and techniques in both informal and formal logic and reasoning, including a discussion of argument, inference, proof, and common fallacies, and an introduction to the syntax, semantics, and proof method in sentential (propositional) logic.

HUMANITIES AND CULTURAL STUDIES

AAS 11. Introduction to Black Diasporic Studies (4)

Please contact the Black Diaspora and African American Studies Department for a course description.

ETHN 2R. Introduction to Ethnic Studies: Circulations of Difference (4)
Focusing on historical and contemporary migration and the circulation of commodities, knowledge, bodies, and culture, this online course examines how racial formation is shaped and contested by such movements within national and transnational contexts. Students may not receive credit for both ETHN 2R and ETHN 2.

HUMANITIES AND CULTURAL STUDIES (cont.)

HILD 7B. Race and Ethnicity in the United States (4)
A lecture-discussion course on the comparative ethnic history of the United States. Of central concern will be the Asian American and white ethnic groups, race, oppression, mass migrations, ethnicity, city life in industrial America, and power and protest in modern America.

HILD 11. East Asia and the West, 1279–1911 (4)
The East Asia survey compares and contrasts the development of China, Korea, and Japan from ancient times to the present. From the Mongol conquests through China's and Korea's last dynasties, and the rise of Meiji Japan, this course examines political, institutional, and cultural ruptures and continuities as East Asia responded to the challenges of Western imperialism with defense, reform, conservative reaction, and creative imitation.

LTEN 28. Introduction to Asian American Literature (4)
This course provides an introduction to the study of the history, communities, and cultures of different Asian American people in the United States. Students will examine different articulations, genres, conflicts, narrative forms, and characterizations of the varied Asian experience.

LATI 10. Reading North by South: Latin American Studies and the US Liberation Movements (4)
The purpose of this class is to study the multilayered relations between Latin American studies and the US liberation movements, particularly Third World movements, the Chicano movement, the black liberation movement, the indigenous movement, human rights activism, and trans-border activism. Students may not receive credit for LATI 100 and LATI 10.

LATI 50. Introduction to Latin America (4)
Interdisciplinary overview of society and culture in Latin America—including Mexico, the Caribbean, and South America: legacies of conquest, patterns of economic development, changing roles of women, expressions of popular culture, cycles of political change, and US-Latin American relations.

RELI 2. Comparative World Religions (4)
An introduction to the comparative study of religion, focusing on religious traditions of global significance. Although historical aspects of these traditions will be studied, emphasis will be placed on religious beliefs and practices as manifested in the contemporary world.

FINE ARTS

MUS 4. Introduction to Western Music (4)
A brief survey of the history of Western music from the Middle Ages to the present. Much attention will be paid to the direct experience of listening to music and attendance of concerts. Class consists of lectures, listening labs, and live performances.

MUS 5. Sound in Time (4)
An examination and exploration of the art and science of music making. Topics include acoustics, improvisation, composition, and electronic and popular forms. There will be required listening, reading, and creative assignments. No previous musical background required.

FINE ARTS (cont.)

MUS 9. Symphony (4)
The symphonic masterworks course will consist of lectures and listening sessions devoted to a detailed discussion of a small number of recognized masterworks (e.g., Mozart, Beethoven, Berlioz, Stravinsky, Ligeti, etc.). ***Prerequisites:*** none. (Offered in selected years.)

MUS 12. Opera (4)
A study of opera masterworks that often coincide with operas presented in the San Diego Opera season. Class consists of lectures, listening labs, live performances, and opera on video.

MUS 13. Worlds of Music (4)
Through surveying selected musical traditions and practices from around the world, this course explores the ways in which music both reflects and affects social, cultural, and ecological relationships. Specific case studies will be covered through lectures, films, and listening sessions. ***Prerequisites:*** none.

MUS 15. Popular Music (4)
A course on popular music from different time periods, covered through lectures, films, and listening sessions. Topics vary from year to year. May be repeated once for credit.

MUS 17. Hip-Hop (4)
This class presents a broad chronological overview of the development of hip-hop as a musical form from the late 1970s through today. It examines the development of the style in relation to direct context and to earlier African American musical and cultural forms and considers the technological and legal issues that have impacted its development. The class is listening intensive and students will be expected to know and recognize essential structures and production techniques. ***Prerequisites:*** none.

MUS 19R. Blacktronika: Afrofuturism in Electronic Music (4)
Explores the lineage of electronic music's Black pioneers, who have been integral but overlooked in the discussion around the creation and development of house, techno, drum and bass, and experimental music. These musics were developed with sociopolitical movements at the foundation of the sounds. We will investigate the African diaspora lens through the artists' usage of science fiction, technology, and futurist ideologies.

TDGE 1. Introduction to Theatre (4)
An introduction to fundamental concepts in drama and performance. Students will attend performances and learn about how the theatre functions as an art and as an industry in today's world.

TDGE 11. Great Performances on Film (4)
Course examines major accomplishments in screen acting from the work of actors in films or in film genres. May be taken for credit three times.

FINE ARTS (cont.)

TDHT 22. Theatre 1500–1900 (4)
Explores varieties of drama in professional theatre from 1500 to 1900 in Europe, Japan, and China, and their interconnections both formal and historical. ***Prerequisites:*** none.

VIS 3. Introduction to Art Making: Three-Dimensional Practices (4)
An introduction to art making that uses as its base the idea of the "conceptual." The lecture exists as a bank of knowledge about various art world and nonart world conceptual plays. The studio section attempts to incorporate these ideas into individual and group projects using any "material." This course is offered only one time each year. ***Prerequisites:*** none.

VIS 21A. Introduction to the Art of the Americas or Africa and Oceania (4)
Course offers a comparative and thematic approach to the artistic achievements of societies with widely divergent structures and political organizations from the ancient Americas to Africa and the Pacific Islands. Topics vary with the interests and expertise of instructor. Students may not receive credit for VIS 21 and VIS 21A. ***Prerequisites:*** none.

VIS 22. Formations of Modern Art (4)
A wide-ranging survey introducing the key aspects of global art and criticism in the nineteenth and twentieth centuries. The course will comparatively examine formations of modernism and modernity within and across a variety of aesthetic traditions in Africa, Asia, Europe, Latin America, North America, and Oceania. ***Prerequisites:*** none.