Goucher College 2018-2019 CTFP Opportunities

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(for additional course listings, see http://catalog.goucher.edu/)

FA18 semester (8/23/18 – 12/7/18):

BIO 210 (Cell Biology and Biochemistry) (labs T or Th 1:30-4:20 PM or Th 8:30-11:20 AM; instructors: Judy Levine and Jenny Lenkowski)
Study of the smallest unit of life focusing on the molecular characteristics of cell components that determine cell behavior. Topics include the composition and structure of the cell membrane, cytoplasm, and organelles in relation to transport, communication, metabolism, division, and locomotion. The models used to explain cell structure, function, and evolution are evaluated in terms of results from selected experiments. [This course is required for biology and BCMB majors and is typically taken during sophomore year. Role of teaching fellow will primarily be in the lab component, although there is potential to also contribute to the classroom component, which will meet MWF 12:00-1:10 PM.]

CHE 111 (Principles of Chemistry I with Lab) (meets MWF 8:40-10:30 AM or 2:40-4:30 PM; instructors: George Greco; Jaired Tate)
Introduction to chemistry including atomic structure, molecular structure, bonding, chemical reactions, and states of matter. Taught in studio format with integrated lecture and lab.

CHE 230 (Organic Chemistry I) (lecture meets MWF 9:20-10:15 AM; instructor: Kevin Schultz)
Chemistry of the compounds of carbon with emphasis on the relation of molecular structure to chemical and physical behavior. Laboratory work includes appropriate techniques and synthetic and analytical methods. Three hours lecture, three hours laboratory. [This is the standard 1st semester orgo taken by chem majors, bio majors, BCMB majors and pre-meds.]

CHE 355 (Modern Methods of Chemical Analysis) (meets MWF 12:00-1:10 PM; instructor: Ingeborg Pettersson)
A survey of methods used by chemists for qualitative analysis (What is this?) or quantitative analysis (How much of this do I have?). Covers chemical methods based on equilibrium, instrumental methods (spectroscopy, electrochemistry, and chromatography), and basic statistics. Course includes a comparison of methods with regard to type of data obtainable, sensitivity, selectivity, and cost. Three hours lecture, three hours laboratory. [This course is a requirement in the chemistry major and an elective in the BCMB major and the chemistry minor.]

PSY 222 (Human Learning and Memory) (meets TuTh 9:30-11:20 AM; instructor: Jennifer McCabe)
This class explores fundamental concepts and current issues in human learning and memory, with a focus on how and why behavior changes with experience, and how this information is stored in the mind. In addition to classic research and theories, there is emphasis on real-world applications, such as in the domains of education, mental health, and the legal system. [This course is an elective for psychology majors and minors.]

SP18 semester (1/28/19 – 5/9/19):

BIO 474 (Seminar in Biological Mechanisms of Aging) (meeting times TBA; instructor: Judy Levine)
Investigation into the current understanding of biochemical processes that underlie progressive aging in humans. Topics include the evolution of senescence, the genetic and environmental components of aging-related diseases such as Alzheimer’s and cancer, and the implications of current research that is aimed at improving the quality and longevity of human life. Lectures, discussions, and student presentations. [This course is an elective in the biology and BCMB majors.]

BIO 4XX (Seminar in Biochemistry of Gene Expression) (course under development, may run in place of BIO 474; instructor: Judy Levine)
This course will replace a discontinued lecture course that focused on the chemical and physical properties of nucleic acids; mechanisms of DNA replication, recombination, and repair; biochemistry of transcription, processing, and translation of genetic information. After a short “lecture” unit covering the basic biochemistry of gene expression machinery, the course will focus on student presentations on examples from the recent literature that illustrate the important interplay between basic research and technological breakthroughs that leverage our understanding of gene expression for biomedical or environmental purposes.

CHE 151 (Principles of Chemistry II with Lab) (meeting times TBA; instructor: TBA)
Second semester of introduction to chemistry sequence including kinetics, thermodynamics, equilibrium, acid-base chemistry, redox reactions and electrochemistry. Taught in studio format with integrated lecture and lab.

CHE 235 (Organic Chemistry II) (meeting times TBA; instructor: Ruguia Ahmed-Schofield)
(Continuation of CHE 230.) Chemistry of the compounds of carbon with emphasis on the relation of molecular structure to chemical and physical behavior. Laboratory work includes appropriate techniques and synthetic and analytical methods. Three hours lecture, three hours laboratory. [This is the standard 2nd semester orgo taken by chem majors, bio majors and pre-meds.]
CHE 340 (Biophysical Chemistry) (meeting times TBA; instructor: Pam Douglass)
Exploration of the states of matter and laws of thermodynamics applied to chemical systems, and rates of reactions. Emphasis will be placed on the physical chemistry of biological systems and the theoretical basis for various biophysical techniques. [This course is required of all chemistry and BCMB majors and is typically taken during the junior or senior year. It has 2 semesters of calculus and 1 semester of physics as prerequisites. Organic chemistry and cell biology are recommended but not required as prerequisites.]

CHE 341 (Biochemistry) (meeting times TBA; instructor: Judy Levine)
Structure and function of biological molecules, chemistry of enzyme-catalyzed reactions, intermediary metabolism. Three hours lecture. Prerequisites: CHE 235 (organic chemistry II) and one college-level general biology course, or permission of the instructor. [This course is typically taken during the junior or senior year; it is required for the BCMB major and may be taken as an upper level elective for the chemistry major.]

CHE 442 (Biochemistry lab) (meeting times TBA; instructor: Judy Levine)
Introduction to the basic techniques for studying the structure and function of biological molecules. Four hours laboratory. Pre- or corequisite: CHE 341. [This course is required for the BCMB major and focuses on enzyme purification and characterization.]

PH 497 (Advanced Seminar in Public Health) (meeting times TBA; instructor: Dara Friedman-Wheeler)
This course will provide a bridge to graduate study in Public Health. The course will be team-taught by faculty from Biology, Psychology, Sociology, and Peace Studies, focusing on approaches to research in Public Health, data analysis, literature review and grant writing. Our approach reflects the multidisciplinary nature of Public Health, and it will help you to identify and understand the role of the skills, methodologies and theoretical paradigms you bring to the table from your majors as you develop new abilities.

CPEC 201 (Genocide and Modernity) (meeting times TBA; instructor: Martin Shuster)
An interdisciplinary introduction to the study of genocide in modernity. Its basic question is the following: is there something about the way in which we, as moderns, have decided to organize ourselves-politically, socially, and economically-that contributes to the prevalence of genocide in the past century and beyond? Spanning the disciplines of genocide studies, Jewish studies, philosophy, and history, the course will serve to give students the tools to understand what genocide is, why it occurs, and what we might be able to do to prevent it. Students will also gain the ability to conduct independent research by conducting research on a genocide of their choosing. [The designation “CPE” refers to “Center Pair Exploration” courses, which are interdisciplinary courses taken by nonmajors to satisfy general education requirements at Goucher.]

PHL 208 (Philosophy of Religion) (meeting times TBA; instructor: Martin Shuster)
In a historically sensitive and comparative manner, this course examines classical and contemporary philosophical accounts of the nature and existence of ultimate reality. Topics covered include conceptions of ultimate reality, evil, immortality, religious experience, and human subjectivity as well as arguments for and against theism, atheism, and agnosticism. Our approach will draw on both Eastern and Western traditions. [This course is an elective in the Philosophy and Religion majors and the Judaic Studies minor.]

PHL 312 (Ethics After Auschwitz) (meeting times TBA; instructor: Martin Shuster)
This course centers around what it means to ‘go on,’ to live, and to exist as an ethical agent in a world ‘after Auschwitz,’ i.e., after a century of genocides and mass death. Throughout the course, we will focus on the ways in which 20th century philosophers, theologians, poets, and other writers assessed, responded to, and ultimately understood human existence after a century of mass murder, what they thought it revealed about humanity and society, and especially what it suggests or proposes about our future, together, as humans. [This course is an elective in the Philosophy major and the Judaic Studies minor.]