

Goucher College 2021-2022 CTFP Opportunities

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Goucher College offers unpaid CTFP opportunities across a variety of courses in the sciences and beyond. Graduate student and postdoctoral applicants are welcomed. In their CTFP application, candidates should mention specific courses of interest to them. Commitment is for one semester.

The courses listed below are ones whose instructors have expressed interest in working with a teaching fellow. It is possible that additional instructors would be open to the idea if they knew a candidate was interested in their course. For a full listing of courses, see <http://catalog.goucher.edu/>.

The class meeting times shown below are for informational purposes only. The type of participation and time commitment by the teaching fellow are negotiable between the fellow and the instructor.

FA21 semester (8/26/21 – 12/10/21):

CENTER FOR NATURAL SCIENCES:

BIO 101 (Explorations in Biology I: The Research Process) (meets MWF 12:00-12:55 PM; labs T or Th 8:30-11:20 AM or 1:30-4:20 PM; instructors: [Anna Jozwick](#), [Mark Hiller](#) and [Natalie VanBreukelen](#))

Through an emphasis on scientific inquiry, students will investigate the foundations of cellular and molecular biology, including DNA, RNA, genes, and proteins. In the laboratory, students will actively develop hypotheses and design experiments to test them. Students will also read primary literature, develop quantitative skills to examine their data, and present their research findings.

CHE 111 (Principles of Chemistry I) (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 MWF 9:20-10:15 AM, labs T 1:30-4:20 PM or Th 8:30-11:20 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.

FYS 100E (First Year Seminar: Alternative Energy for Everyone) (meets TuTh 11:30-1:20 PM; instructor: [Ruquia Ahmed-Schofield](#))

This is a lecture/laboratory hybrid course designed to provide an appreciation and in-depth understanding of alternative energy. Topics will be taught in an interactive environment and will include hands-on activities/projects in the construction of selected devices related to alternative energy. As the title implies, this class is designed for everyone, which includes both science and non-science students; the one pre-requisite is an interest in the topic.

CENTER FOR DATA, MATHEMATICAL AND COMPUTATIONAL SCIENCES:

DMC 106 (Statistical Linear Models) (meets MWF 9:20-10:30 AM; instructor: [Tom Narock](#))

An introduction to basic statistical principles, including basic probability, hypothesis testing and normal distribution. This will culminate in the introduction of linear regression, ANOVA, logistic regression and correlation. The class will focus on the computational and programming aspects of linear regression and model building. Data cleaning and importing, experimental design, model refinement and visualization will be emphasized.

CENTER FOR HISPANIC & LATINX STUDIES:

LAM 105 (Intro to Latin American Studies) (meets MWF 8:00-9:10 AM; instructor: [Citlali Miranda-Aldaco](#))

This course will introduce students to many cultural, social, and political aspects of the region of the world known as Latin America. Beginning with the various views of what is meant by "Latin American," the course will give students a more complete picture of the heterogeneous identities of the area. Taking an interdisciplinary, broad approach to regional studies, the course will explore the diverse artistic movements, social organizations, and political institutions that have shaped Latin America in the past and continue to define its present.

CENTER FOR PSYCHOLOGY:

PSY 233 (Sensation and Perception) (meets MWF 9:20-10:30 AM; instructor: [Tom Ghirardelli](#))

This course is a survey of current theory and research in perception. The primary goal is for students to gain an understanding of how people obtain reliable and useful information about the environment around them through their senses. Exploring several perceptual systems, including vision, audition, touch, and smell and taste, we will cover topics such as the physiological structure of sensory systems; how we measure perceptual experience (e.g., psychophysics); the role that attention plays in our perceptual experience; how our overall perceptual experience results from integration across multiple sensory systems; and how our sensory systems and perceptual experience are similar to and different from that of non-human animals. [This course is an elective for psychology majors and minors.]

PSY 244 (Lifespan Developmental Psychology) (meets MWF 12:00-1:10 PM; instructor: [Katherine Choe](#))

A lifespan approach tracing human development from conception through the life cycle until death. Important theoretical contributors are highlighted, including Freud, Erikson, Bowlby, Piaget, Chomsky, Kohlberg, and Kubler-Ross. Topics will include prenatal development, language acquisition, the formation of emotional bonds in relationships, personality and identity development, changes in family and work roles, and the experience of facing one's mortality. [This course is an elective for psychology majors and minors.]

PSY 302 (Quantitative Research Methods in Psychology) (meets MWF 9:20-10:30 AM; instructor: [Katherine Choe](#))

This course will address the overall process of psychological research from the development of a research question to the presentation of research results. Topics to be covered include the role of theory in the scientific method, research design, various collection techniques and analytic strategies for quantitative empirical data, and ethical considerations. Students will develop skills in scientific writing (APA style) and critically reading and reviewing the literature. The course will require statistical analysis of research data and interpretation of the results. [Psychology majors are required to take this course or a course in qualitative research methods.]

CENTER FOR THE STUDY OF MODERN LANGUAGES, LITERATURES & CULTURES:

FR 130 (Intermediate French) (meets MWF 9:20-10:30 AM or MWF 12:00-1:10 PM; instructor: [Kathryn St. Ours](#))

A continuation of FR 110 and FR 120, this course focuses on the attainment of intermediate-level proficiency in linguistic skills (understanding oral and written French, speaking, and writing) taught in cultural context. Includes close reading of short pieces by Francophone authors, close viewing of audiovisual materials, and discussion of particular cultural elements in the target language.

FR 357 (Special Topics in French & Francophone Narratives: Social Justice Through Fiction) (meets MWF 2:40-3:50 PM; instructor: [Kathryn St. Ours](#))

How does the Francophone world address social justice and injustice through fiction? Can films, literature and television contribute to the struggle for more just societies? Who are the villains and the heroes in *Lupin* (2020) or *Les Misérables* (2018)? How do authors such as Victor Hugo or Maryse Condé depict the plight of the victims of social injustice? Works studied will be discussed as forms of cultural production that underscore an urgent need for social equality regardless of gender, race, sexual preference, social class, or education, for instance.

SP21 semester (1/31/22 – 5/12/22):

CENTER FOR NATURAL SCIENCES:

BIO 102 (Explorations in Biology II: Life in Context) (meeting times TBA; instructors: [Jay Garaycochea](#); [Akana Noto](#); Gizelle Simpson)

Life in Context explores the diversity of living organisms, the evolutionary relatedness of all organisms, and interconnected associations between organisms. Particular emphasis is placed on the importance of biological diversity to ecosystem health and on issues of human relevance. The fundamental concepts and principles of biology are emphasized throughout the course

BIO 474 (Seminar in Mechanisms of Aging and Cancer) (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. Emphasis on primary literature. [This course is an elective in the biology and BCMB majors.]

CHE 151 (Principles of Chemistry II) (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: [Ruquia 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.

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 biology or 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.]

CENTER FOR THE STUDY OF MODERN LANGUAGES, LITERATURES & CULTURES:

FR 444 (Transnational Environmental Studies in French) (meeting times TBA; instructor: [Kathryn St. Ours](#))

This course is devoted to environmental issues important in France and Francophone countries but which clearly concern the whole world. We will explore current ecological issues such as global warming, the opening of the Northwest Passage, genetically modified organisms, nuclear energy, the relationship between human and non-human animals, alter-globalization, green party politics, etc., from a pluri-disciplinary perspective. These viewpoints may include politics, science, history, philosophy, demography, economics and geography, for example, expressed in media such as the press, the cinema, music, and literature.

CENTER FOR EDUCATION, BUSINESS & PROFESSIONAL STUDIES:

BUS 229 (Marketing Management) (meeting times TBA; instructor: [David Grossman](#))

A review of the basic concepts and practice in modern marketing. Course demonstrates marketing principles through and projects related to current events in the manufacturing and service sectors; in profit and nonprofit organizations; and domestic, international, and multinational companies. Students are responsible for conducting market research and presenting analysis of real-world marketing problems and situations.

BUS 231 (International Business Environment) (7-wk course; meeting times TBA; instructor: [David Grossman](#))

An introduction to the economic, political, and legal environment faced by firms engaged in international business and its implications for national economies. Topic areas include international trade, investment, the global monetary system, the competitiveness of U.S. firms in world markets, national industrial policy, and the ethical dilemmas of conducting international business.

BUS 480 (Strategic Management) (meeting times TBA; instructor: [David Grossman](#))

A straightforward and understandable framework is provided through which students can grasp the complexity of strategic management. The framework is then applied to individual and group cases.