

Goucher College Spring 2020 CTFP Opportunities

Program coordinator: Dr. Judy Levine, Professor of Biological Sciences and Chemistry
jlevin@goucher.edu; 410-337-6525

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

SP20 semester (1/27/20 – 5/7/20):

BIO 102 (Explorations in Biology II: Life in Context) (meeting times TBA; instructors: [Cynthia Kicklighter](#); 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. [Role of teaching fellow will primarily be in the lab component.]

BIO 474 (Seminar in Biological Mechanisms of Aging) (not certain to be offered SP20, but listing here just in case; 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.]

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: [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. Three hours lecture, three hours laboratory. [This is the standard 2nd semester orgo taken by chem majors, bio majors and pre-meds.]

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 (Public Health Capstone) (meeting times TBA; instructors: [Dara Friedman-Wheeler](#); [Jennifer Bess](#))

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.

PHY 116 (Principles of Physics II) (meeting times TBA; instructor: Nina Markovic)

Second semester of a non-calculus-based course sequence designed for students majoring in the life sciences or non-science students interested in physics. Topics include simple harmonic motion, mechanical and electromagnetic waves, acoustics, nature of light and color, geometrical and physical optics, electricity and magnetism. Three hours of lecture plus a 3-hour laboratory session per week.