MOLECULAR AND ENVIRONMENTAL TOXICOLOGY CENTER (M&ENVTOX)

M&ENVTOX/ONCOLOGY/PHM SCI/PHMCOL-M/POP HLTH 625 – TOXICOLOGY I
3 credits.

Basic principles of toxicology and biochemical mechanisms of toxicity in mammalian species and man. Correlation between morphological and functional changes caused by toxicants in different organs of the body.
Requisites: (BIOCHEM 501 or 508) and (ANAT&PHY 335, 435, or (BIOCORE 485 and 486)) and PATH 404; or graduate/professional standing
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Fall 2023

M&ENVTOX/PATH/PHM SCI/PHMCOL-M/POP HLTH 626 – TOXICOLOGY II
3 credits.

Survey of the basic methods and fundamental biochemical mechanisms of toxicity. Toxicity in mammalian organ systems, techniques for evaluating toxicity, as well as mechanisms of species specificity, and environmental interactions (with toxicant examples) are presented.
Requisites: POP HLTH/M&ENVTOX/ONCOLOGY/PHM SCI/PHMCOL-M 625
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2024

M&ENVTOX/CIV ENGR/SOIL SCI 631 – TOXICANTS IN THE ENVIRONMENT: SOURCES, DISTRIBUTION, FATE, & EFFECTS
3 credits.

Nature, sources, distribution, and fate of contaminants in air, water, soil, and food and potential for harmful exposure.
Requisites: (CHEM 104, 109, or 116) and (MATH 211, 217, 221, or 275) and (PHYSICS 104, 202, 208, or 248)
Course Designation: Breadth - Biological Sci. Counts toward the Natural Sci req
Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: No
Last Taught: Spring 2024

M&ENVTOX/AGRONOMY/ENTOM/F&W ECOL 632 – ECOTOXICOLOGY: THE CHEMICAL PLAYERS
1 credit.

Introduction to natural and man-made toxins/toxicants, their distribution, transport, and fate in the environment.
Requisites: (CHEM 341 or 343) and ((BOTANY/BIOLOGY 130 and ZOOLOGY/BIOLOGY 102) or ZOOLOGY/BIOLOGY/BOTANY 152 or BIOCORE 383); or graduate/professional standing
Repeatable for Credit: No
Last Taught: Fall 2019

M&ENVTOX/AGRONOMY/ENTOM/F&W ECOL 633 – ECOTOXICOLOGY: IMPACTS ON INDIVIDUALS
1 credit.

Addresses absorption, biotransformation, elimination of toxins in a wide variety of taxa (plants, invertebrates, vertebrates).
Requisites: M&ENVTOX/AGRONOMY/ENTOM/F&W ECOL 632
Repeatable for Credit: No
Last Taught: Fall 2019

M&ENVTOX/AGRONOMY/ENTOM/F&W ECOL 634 – ECOTOXICOLOGY: IMPACTS ON POPULATIONS, COMMUNITIES AND ECOSYSTEMS
1 credit.

Focuses on the impact of toxicants on populations, communities, ecosystems, and includes risk evaluation. Includes lectures, current research presentations, and discussions.
Requisites: M&ENVTOX/AGRONOMY/ENTOM/F&W ECOL 633 or declared in Molecular and Environmental Toxicology, PhD program
Repeatable for Credit: No
Last Taught: Fall 2019

M&ENVTOX 699 – SPECIAL PROBLEMS
1-3 credits.

Directed study projects as arranged with instructor.
Requisites: Consent of instructor
Course Designation: Level - Advanced
L&S Credit - Counts as Liberal Arts and Science credit in L&S
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Summer 2022

M&ENVTOX/POP HLTH 789 – PRINCIPLES OF ENVIRONMENTAL HEALTH: A SYSTEMS THINKING APPROACH
3 credits.

Provides an overview of the field of environmental health, using a systems thinking approach. Systems thinking recognizes that environmental health problem solving is complex and that solutions in one area may have positive or negative impacts on other areas. An introduction to the history of environmental health within the field of public health from the local to the federal and global level. Introduces multiple disciplines, methods and approaches to numerous environmental health topics. Includes introduction to methods and tools necessary for assessing human health risks from a variety of environmental hazards and exposures found in air, land, and water with a focus on physical and chemical risks. Additional details regarding specific hazard, exposure and health outcome data and their relationship to environmental health risk assessment, environmental health decision-making and management form a public health practice perspective will be discussed.
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2019

M&ENVTOX 800 – SEMINAR
1 credit.

Current research in environmental toxicology and pathology and other topics of interest and importance to environmental toxicologists.
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2024

M&ENVTOX 801 – SCIENTIFIC COMMUNICATION IN MOLECULAR & ENVIRONMENTAL TOXICOLOGY
2 credits.

Provides an overview of scientific communication; specifically, students will be exposed to the various methods of communicating their science including articles, proposals, presentations / lectures, and posters. Strategies will demonstrate best practices for each method and enable students to critically define what sets apart good examples from poor. Classroom discussions allow for comprehension of these means. Assignments are designed to familiarize the students with these methods. Students will have classroom instruction and the opportunity to learn from peer mentors as well as laboratory directors on different preferences and approaches to science communication.
Requisites: Graduate/professional standing
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: No
Last Taught: Spring 2024

M&ENVTOX 990 – RESEARCH
1-9 credits.

Independent research and writing for graduate students under the supervision of a faculty member.
Requisites: Consent of instructor
Course Designation: Grad 50% - Counts toward 50% graduate coursework requirement
Repeatable for Credit: Yes, unlimited number of completions
Last Taught: Spring 2024