CAN BIOL SEQUENCE A AND RELEVANT COURSE DESCRIPTORS

CAN SEQUENCE A

CAN BIOL SEQUENCE A: CAN BIOL sequence A comprises CAN Biol 2 + 4 + 6. Alternatively, any course sequence that includes the content, lecture and laboratory hours described in the CAN Biol Core Curriculum is considered the equivalent to CAN sequence A.

CAN COURSE DESCRIPTORS

CAN 2 – Principles of Biology: Cell/Molecular Biology

present descriptor: This course will cover principles and applications of basic chemistry, biochemistry, cell structure and function, homeostasis, cell division, molecular genetics, Mendelian genetics, cellular respiration including both photosynthesis and respiration. The philosophy and methods of science, and experimental design are emphasized. Lab course.

proposed descriptor: This course will cover principles and applications of the structure and function of biological molecules, prokaryotic and eukaryotic cell structure and function, homeostasis, cell reproduction and its controls, molecular biology, molecular genetics, transmission genetics, cell metabolism including photosynthesis and respiration, and viruses. The philosophy of science, scientific methods and experimental design are foundational to the course. CAN 2 is a laboratory course.

CAN 4 – Principles of Animal Diversity

present descriptor: This course covers the comparative structure, organ system functions, development, evolutionary history, taxonomy and behavior of animals. Population genetics, and mechanisms of evolution are also considered. Lab course.

proposed descriptor: This course covers the comparative structure and function of animals and protists, development, homeostatsis, microevolution and macroevolution, taxonomy and systematics, molecular and morphological phylogeny, and behavior. Population and evolutionary history are also emphasized. CAN 4 is a laboratory course.

CAN 6 – Principles of Plant Diversity

present descriptor: This course covers comparative structure, organ system functions, development, evolution, phylogeny, and taxonomy of plants. Principles of population and community ecology and ecosystem interactions are also considered. Lab course.

proposed descriptor: This course covers photosynthesis, algae, protists, fungi, comparative plant structure and function, homeostasis, development, evolution, phylogeny, and taxonomy of plants. Principles of population and community ecology and ecosystem interactions are emphasized. CAN 6 is a laboratory course.