BI/BIO/BIOL 222Z Principles of Biology: Organisms

For more detailed information, see CCN Reports & Memos on the Educator Resources—Common Course Numbering webpage.

CCN Course/Course Information
Biology
Course Number and Subject Codes: BI, BIO, or BIOL 222Z **Course Title:** Principles of Biology: Organisms **Course Credits:** 5 (The course must include both lecture and lab components. Both of these components are embedded under the same course number and appearing as a single grade item on transcripts.) **Course Description:** Explores fundamental biological concepts and theories about the structure and function of diverse organisms (including plants and animals), evolution and development, transformation of energy and matter, and body systems at a multicellular organismal level. Intended for science majors. **Course Learning Outcome Introductory Statement:** This work is based on the national 2011 American Association of Advancement of Science (AAAS) report "Vision and Change in Undergraduate Biology Education" that recommended 5 overarching Core Concepts and 6 Core Competencies for biology majors. For details about implementation refer to: For Core Concepts see BioCore Guide (see Supplement 2 from Brownell et al., 2017) For Core Competencies see BioSkills Guide (see Supplement from Clemmons et al., 2020) **Course Learning Outcomes:** 1. Apply the iterative process of science to generate and answer biological questions by analyzing data and drawing conclusions that are based on empirical evidence and current scientific understanding. 2. Use evidence to develop informed opinions on contemporary biological issues and explain the implications of those issues on society. 3. Explain how morphology relates to physiology across diverse organisms. 4. Describe how biological systems detect and respond to different internal/external environmental conditions through feedback. 5. Compare and contrast strategies for achieving homeostasis. 6. Explain how developmental and environmental processes influence the evolution of structures, functions, and life cycles across diverse organisms.