

SCIENCE (SCI)

SCI 221. Health Professions Integrated Learning. (2 Credits)

Health Professions Integrated Learning engages students with opportunities to observe the clinical and administrative responsibilities of various health careers. The course focuses on essential healthcare topics, fosters self-reflection on the observational or health volunteer experience and facilitates assessment of work-related skills. Students engage a summative assignment considering the links between healthcare issues, personal and professional skills and Christian faith in their future healthcare practice. The student will observe and interact with health care professionals in a clinical settings during the semester. Sophomore only standing or consent of the instructor (2 credit, linear quad).

SCI 292. Health Professions Practicum. (0 to 2 Credits)

The practicum allows students practice at integrating the scientific and social principles learned in the classroom with situations in a healthcare setting. Students observe and/or volunteer in a specific healthcare context approved by the Director of Health Professions. The practicum includes an introductory and summative assignment in which students consider their motivations and goals along with the connections between healthcare practices, personal spiritual formation, and practical skills. Prerequisite: Instructor approval required for registration.

SCI 299. Pre-Field Camp Preparation. (0 Credits)

Students are introduced to relevant practical issues and challenges, particularly related to the cultural and historic context of studying at the Wheaton College Science Station. Students will be provided resources that will help them prepare for and get the most out of the experiential education in the Black Hills. The course equips students to thoughtfully engage in their field camp experience, work through the practical steps of field camp preparation, and be a positive member of the Science Station community.

SCI 301. Natural Science: Foundations, Methods, Challenges. (4 Credits)

A historical and philosophical study of methodological and foundational issues in the natural sciences focusing principally on physics, astronomy, biology, and challenges the natural sciences present to culture. Completion of a SP course is highly recommended prior to taking this course.

Tags: PI, SIP

SCI 302. Origins of Scientific Thought. (4 Credits)

An introduction to the history of science, helping students understand its value for making sense of our contemporary cultural context. This is accomplished through studying the development of natural philosophy and the emergence of scientific methods and modes of thought. Particular emphasis is placed on the philosophical, religious, and institutional contexts, continuity and change over time, causality, contingency, and complexity of the emergence of scientific thought. This course engages in an in-depth exploration of a period, issue, concept, key figures, or a set of over-arching questions.

Tags: HP, SIP

SCI 303. Making Modern Science. (4 Credits)

Investigates the historical development of modern sciences from the Early Modern period to the present helping students explore the value of the sciences for understanding our contemporary cultural context. Particular emphasis is placed on the philosophical, religious and institutional contexts, continuity and change over time, causality, contingency, and complexity of the emergence of scientific thought and practice. This course engages in an in-depth exploration of a period, issue, concept, or over-arching questions.

Tags: HP, SIP

SCI 311. Theories of Origins. (4 Credits)

Examination of scientific theories of origins and development, such as Big Bang cosmology, Earth's formation and early history, origin of life, origin of species, history of life, and human origins. Relationships between biblical and scientific explanations are explored for each topic. Prerequisite: any SP course. Field trip fee.

Tags: SIP

SCI 321. Methods of Teaching High School Science. (2 Credits)

Required for science majors who plan to teach high school. Survey of science curricula, computer applications in science teaching, laboratory theory and evaluation processes, management of laboratories, and field trips. Prerequisite: Ten hours of education courses and ten hours of courses in teaching area major. Additional course fee required: \$15.

SCI 322. Elementary Grade Education Science Curriculum. (2 Credits)

Required for elementary education majors. Survey of elementary science curricula and resources; consideration of perspective, process, content, and application of science in teaching. Concurrent with EDUC 305L, 311L, 312, 315, 317, SSCI 321 or consent of instructor. Prerequisite: EDUC 135, 136, 136L, 225, 225L, 305, and MATH 125.

SCI 325. Methods of Teaching Middle Grade Science. (2 Credits)

Required for those seeking an endorsement for teaching middle grade science. Includes theories and methods for teaching science at the middle grade level (grades 5-8). Topics include effective teaching strategies, planning, and assessment of science content, particularly with science processes and inquiry. Based on the Next Generation Science Standards and the Illinois Professional Teaching Standards. Prerequisites: Ten hours of education courses and ten hours of courses in teaching area major.

SCI 393. Interdisciplinary Studies in Science. (2 to 4 Credits)

Interdisciplinary study of topics in the natural sciences. Prerequisite: a CATC SP lab course.