Interdisciplinary Science

ISCI 101. Physics, Chemistry and the Human Experience. 3 credits.
A survey of the fundamental concepts, principles and ideas of chemistry and physics. Particular emphasis is placed on understanding the development of the principles and their application in understanding the world around us. May be used for general education credit. Prerequisite or corequisite: One of the following: MATH 103, MATH 107, MATH 205, MATH 220, MATH 231 or MATH 235.

ISCI 104. Scientific Perspectives. 1 credit.
A study of topics selected to allow students to participate in mathematical and scientific problem solving approaches to knowledge. May be used for general education credit. Prerequisite or corequisite as indicated on MyMadison.

ISCI 171. Earth and Planetary Science for Teachers. 3 credits.
This course provides university-level foundations of earth and planetary science for future pk-8 teachers. Content aligns with various teacher competencies, and includes such topics as the formation and evolution of the earth and the earth’s solar system, the characteristics of stars, planets, asteroids, and comets, and how earth and planetary science knowledge and technologies function with social context. Hands-on, experiential inquiry will be integrated into the course, as will an exploration of such methods as observation, classification, comparison, measurement, data interpretation, mathematical analysis, inference, prediction, and hypothesis testing. Normally open to IDLS majors only, but other students may request admission by special permission. May be used for general education credit.

ISCI 172. Physical Science for Teachers. 3 credits.
This course provides university-level foundations of physical science for future pk-8 teachers. Content aligns with various teacher competencies, and includes such topics as matter, conservation of mass and energy, chemical structures and bonds, coordinate systems and their use in describing motion and force, thermodynamics, light, sound, magnetism and electricity, and how physical science knowledge and technologies function with social context. Hands-on, experiential inquiry will be integrated into the course, as will an exploration of such methods as observation, classification, comparison, measurement, data interpretation, mathematical analysis, inference, prediction and hypothesis testing. Normally open to IDLS majors only, but other students may request admission by special permission. May be used for general education credit.

ISCI 173. Life and Environmental Science for Teachers. 3 credits.
This course provides university-level foundations of physical science for future pk-8 teachers. Content aligns with various teacher competencies, and includes such topics as energy, environment, ecological succession, biological diversity and evolution, life systems and systems feedback, air and water quality, resource use and conservation, and how life and environmental science knowledge and technologies function with
social context. Hands-on, experiential inquiry will be integrated into the course, as will an exploration of such methods as observation, classification, comparison, measurement, data interpretation, mathematical analysis, inference, prediction, and hypothesis testing. Normally open to IDLS majors only, but other students may request admission by special permission. May be used for general education credit.

**ISCI 450 A, B, C. Interscience Research.** 1-4 credits, repeatable to 6 credits. An investigative experience spanning more than one field of science which may require supervision by multiple faculty members from different disciplines. Students must get prior approval for this course from each of the supervising faculty members and the department head of their program. **Prerequisites:** Junior status and permission of the instructors.