

Integrated Science Courses

UCGE Proposal Criteria & Suggestions

The University of Idaho Faculty is invited to submit proposals for, or revisions to, the Integrated Science requirement of the general education curriculum.

Guidelines for the Integrated Science Course:

- Integrated Science Course Objectives:
 - Strengthen student understanding of the methodology of science so as to foster logical thinking about and the ability to make complex scientific and social decisions.
 - Increase awareness of the nature and limitations of scientific knowledge.
 - Emphasize the impact of science on society and the impact of society on science.
 - Consider the ethical dilemmas and moral consequences of research that may confront the scientist.
 - Create an understanding of the differences between belief and scientifically testable or validated results.
 - Place scientific advances and issues in a historical context.
 - Stress collaborative work and problem solving techniques in providing the student with the opportunity to become actively engaged in conducting science.
- Idaho State Board of Education (SBOE) General Education Matriculation (GEM) definition of the Sciences: A person who is competent in scientific reasoning adheres to a self-correcting system of inquiry (the scientific method) and relies on empirical evidence to describe, understand, and predict natural phenomena.
- Align to the GEM SBOE competency and knowledge objectives for the Natural, Physical & Applied Sciences:
 - (1) Apply foundational knowledge and models of a natural or physical science to analyze and/or predict phenomena.
 - (2) Understand the scientific method and apply scientific reasoning to critically evaluate assertions.
 - (3) Interpret and communicate scientific information via written, spoken, and/or visual representations.
 - (4) Describe the relevance of specific scientific principles to the human experience.
 - (5) Form and test a hypothesis in a laboratory, classroom, and/or in the field, using discipline-specific tools and techniques for data collection and/or analysis.

Proposals should consist of the following:

- **Instructor:** Name and title of instructor. If the instructor is not a full-time faculty member, please briefly describe his or her experience teaching general education or in teaching in professional preparation.
- **Course Outline and Description:** In one to two pages, describe the course and its objectives and provide a course outline/syllabus. Please include a list of likely materials and activities included in the course and discuss how the course emphasizes and measures the University of Idaho's five learning outcomes and the five GEM competencies (below), as well as the seven objectives of Integrated Science courses (below). Identify a specific learning activity (e.g., written paper, oral presentation, collaborative project, poster, etc.) of the course that directly emphasizes and is integrated with the University Learning Outcomes, and provides some means of measuring the students' competencies in meeting these Learning Outcomes. The course syllabus may also be included in the course proposal packet to supplement this information.
- **Department Support:** A signature line indicating department support for the course.

For assistance with the course proposal, contact Dean Panttaja, Director of General Education at panttaja@uidaho.edu or visit the General Education, Resources for Faculty page at <https://www.uidaho.edu/academics/general-education/faculty-advisor-information/faculty>

Learning Outcomes to be considered in Integrated Science Courses:

University and Course specific learning outcomes broadly describe expected and desired consequences of learning through integrated curricular and co-curricular experiences. The outcomes become an expression of the desired attributes of an educated person and guide coherent, integrated and intentional educational experiences. They provide us with a basis for ongoing assessment to continuously improve teaching and learning. The following Learning Outcomes Template has been designed to help faculty members easily demonstrate the links between their course objectives/learning outcomes and the University Learning Outcomes. This format is not required. As long as you provide the links between the course and university objectives, any format is acceptable.

Learn and Integrate - Through independent learning and collaborative study, attain, use, and develop knowledge in the arts, humanities, sciences, and social sciences, with disciplinary specialization and the ability to integrate information across disciplines.

1. (Course Specific Learning Outcomes)
2. “ “

Think and create - Use multiple thinking strategies to examine real-world issues, explore creative avenues of expression, solve problems, and make consequential decisions.

1. (Course Specific Learning Outcomes)
2. “ “

Communicate - Acquire, articulate, create and convey intended meaning using verbal and non-verbal methods of communication that demonstrate respect and understanding in a complex society.

1. (Course Specific Learning Outcomes)
2. “ “

Clarify Purpose and Perspective - Explore one’s life purpose and meaning through transformational experiences that foster an understanding of self, relationships, and diverse global perspectives.

1. (Course Specific Learning Outcomes)
2. “ “

Practice Citizenship - Apply principles of ethical leadership, collaborative engagement, socially responsible behavior, respect for diversity in an interdependent world, and a service-oriented commitment to advance and sustain local and global communities.

1. (Course Specific Learning Outcomes)
2. “ “

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