

Inquiry Core: Scientific Investigations

Submitting a course for inclusion in CSU's Inquiry Core Curriculum is an opportunity to think creatively about how you can spark students' curiosity and help them see the value of the knowledge and methods of your discipline.

Inquiry Core Curriculum Requirements

All courses in the CSU Inquiry Core Curriculum must be:

- Offered at the 100- or 200-level;
- Accessible and inviting to first-year non-major students;
- Adopt an Inquiry Orientation to design and delivery; and
- Include one or more Signature Assignments

Scientific Investigations Requirements

All lab courses fulfilling the "Scientific Investigations" requirement must:

- Be associated, either by being embedded in or by being a co-requisite with, an approved "Scientific Inquiry" natural science lecture course
- Meet OT-36 *Natural Sciences Laboratory* Learning Outcomes/Requirements
- Develop and assess the Core Competencies of *Collaboration & Information Literacy*

Instructions for Completion

- Complete this document in Adobe Acrobat Reader. If you find that you cannot enter any additional text in a textbox, it is because you are using an incompatible PDF reader.
- If the laboratory component is embedded in the lecture course (i.e., there is not a distinct course code) then include this form with submission of the "Scientific Inquiry" lecture course
- If the laboratory component is a distinct course, then originate a new proposal in curriculog for the laboratory course code and attach this document to that proposal

[The CSU Core Curriculum Handbook](#)

Contact the Core Curriculum Director: corecurriculum@csuohio.edu

Lab Course Code & Title	Associated Lecture Code & Title

OT36 Outcome Mapping

For OT-36, the natural science lecture and lab component are submitted as a pair. ODHE does require a separate memo that describes how the lab component will meet the learning outcomes and requirements. If the lab will be offered in multiple modalities (i.e., in-person and online) then a *separate* memo for each modality is required.

You should write the memo and attach it to your proposal in Curriculog. The memo should speak to the following:

Natural Sciences Laboratory Requirement: students will complete at least one course within the Natural Sciences Ohio Transfer 36 that includes a laboratory component. This laboratory component must carry at least one credit hour and involve at least 1,500 minutes of laboratory activities (an average of no less than two hours per week for a traditional 15-week semester). During the course, students will demonstrate the application of the methods and tools of scientific inquiry appropriate to the discipline, by actively and directly collecting, analyzing, and interpreting data, presenting findings, and using information to answer questions. In addition to achieving the Student Learning Outcomes 1-8 detailed above, Ohio Transfer 36 approved courses that include a laboratory component¹ will achieve all the following student learning objectives in the equivalent of at least 10 weeks (~2/3) of the course's "laboratory activities":

- involves realistic measurements of physical quantities;
- involves data analysis, using data that are unique and/or physically authentic and that include random and/or systematic (natural) variability;
- includes realistic interactions with experimental apparatus, and realistic manipulation of tools/ instruments and/or observed objects in space and time;
- involves synchronous feedback² on safety (and consequences of unsafe actions), correctness of procedure, and progress toward experimental goals; and
- involves effective interaction with the instructor at several points during each lab activity.

Core Competency Mapping

The core competencies required are provided below. For each competency, do the following:

- (a) Indicate which two learning outcomes the course will especially focus on developing and assessing through one or more signature assignments. The available learning outcomes can be found on the [CSU Core Competencies](#) page of the [Core Curriculum Handbook](#).
- (b) Indicate how each identified learning outcome is taught, practiced, and developed in the course.

[CSU Core Competencies](#)

Core Competency 1: Collaboration	
Core Competency Learning Outcome	How outcome is taught, practiced, and developed in the course
Core Competency 2: Information Literacy	
Core Competency Learning Outcome	How outcome is taught, practiced, and developed in the course

Signature Assignments

Each core curricular course is required to have at least one signature assignment and to assess all chosen core competency learning outcomes through signature assignments. All signature assignments include two parts: some form of **authentic assessment** and a **reflection assignment** related to the assessment and/or course.

To complete this section, do the following:

- (a) Name and briefly describe the signature assignment
- (b) Indicate which core competency learning outcome(s) the signature assignment will assess and how it will do so.
- (c) Indicate how students will be prompted to engage in meaningful reflection about their learning in the course

If you are using more than three signature assignments, include an additional attachment in Curriculog answering the same prompts as below for each additional signature assignment.

[Learn more about Signature Assignments](#)

(a) Signature Assignment Name/Description	(b) Assessed Core Competency learning outcomes	(c) Reflection Assignment