Inquiry Core: Scientific Inquiry

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 Inquiry Requirements

All courses fulfilling the "Scientific Inquiry" requirement must:

- Meet OT-36 *Natural Sciences* Learning Outcomes
- Develop and assess the Core Competencies of *Critical Thinking* & *Quantitative 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.
- Include the Core Curriculum Syllabus Statement in your syllabus
- Attach this completed document, your syllabus, and an overview of your signature assignment(s) in Curriculog.

The CSU Core Curriculum Handbook
Contact the Core Curriculum Director: corecurriculum@csuohio.edu

Course Code & Title	Associated Lab Code & Title (if applicable)

OT36 Outcome Mapping

For each OT36 learning outcome provided in the left column, indicate the following:

(a) How the course embeds the outcome. How is it taught and developed? Provide specific examples
(b) How specified assignments will be used to assess student achievement of the outcome
(c) Where in the included materials (syllabus, assignments, etc.) can evidence of the embedding and assessing be found?

OT36 Outcome	(a) Course Embed	(b) Assessment of Outcome	(c) Evidence of (a) and (b)
Understand the basic facts, principles, theories and methods of modern science.			
Explain how scientific principles are formulated, evaluated, and either modified or validated.			
Use current models and theories to describe, explain, or predict natural phenomena.			

OT36 Outcome	(a) Course Embed	(b) Assessment of Outcome	(c) Evidence of (a) and (b)
Apply scientific methods of inquiry appropriate to the discipline to gather data and draw evidence-based conclusions.			
Demonstrate an understanding that scientific data must be reproducible but that it shows intrinsic variation and can have limitations.			
Apply foundational knowledge and discipline-specific concepts to address issues or solve problems.			
Explain how scientific principles are used in understanding the modern world, and understand the impact of science on the contemporary world.			

OT36 Outcome	(a) Course Embed	(b) Assessment of Outcome	(c) Evidence of (a) and (b)
Gather, comprehend, apply and communicate credible information on scientific topics, evaluate evidence-based scientific arguments in a logical fashion, and distinguish between scientific and non-scientific evidence and explanations.			

Inquiry Orientation

Core Curricular courses are expected to take an inquiry orientation toward course design, organization, and instructional method. While complete "Inquiry Based Education" is not required, courses should include the following two components, *which should also be explicitly reflected to students in the syllabus:*

- Organize learning around the exploration and investigation of problems or questions that would be of interest to and engaging for first year students;
- Require students to engage, individually or collaboratively, in some of the stages of inquiry.

Learn more about designing for inquiry

Major Problems/Questions: What are the major problems and/or questions that frame your course?

Stages of Inquiry: How will students be engaged in the inquiry process in the course? What activities and/or assignments will be used to develop students' ability to engage in inquiry?

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: Critical Thinking	
Core Competency Learning Outcome	How outcome is taught, practiced, and developed in the course
Core Competency 2: Quantitative 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

Inquiry Pathway

Core Curricular courses may be included in one or more established Inquiry Pathways. Core courses are not required to be included in any pathway.

If you would like this course to be included in a pathway, answer the questions below.

Pathway: None
How will the course meaningfully and substantively contribute to the pathway theme?
Pathway: None
How will the course meaningfully and substantively contribute to the pathway theme?