UNIVERSITY OF DETROIT MERCY

Core Curriculum Outcomes Assessment Summary Form

This form is to be completed by a representative from the Core Curriculum Assessment Sub-Committee. The information provided in this form will be used by University of Detroit Mercy to inform stakeholder groups about Detroit Mercy's commitment to the intellectual, spiritual, moral and social development of all undergraduate students as they navigate through the Core Curriculum. A PDF version of this completed form will be posted to the Academic Affairs Assessment website.

1. CORE OUTCOMES INFORMATION

   Core Curriculum Area *

   ◉ Knowledge Area

   ○ Integrating Theme

2. Enter the Knowledge Area or Integrating Theme of the Outcomes Assessed:
   For example, KA-A1. Oral Communication or Integrating Theme 1 - Reading, Writing, & Research Across The University *

   > C1 Physical Sciences

3. Form Completion Date: *

   > 3/28/2025

4. Assessment Overview

   Briefly share how the outcome identified above was assessed. Include semester and year, how student artifacts were collected, who performed the assessment, and what assessment tool was used. *

   > The core curriculum Core Knowledge Area: C1: Physical Sciences includes goals, values, and conceptions of scientific literacy, empirical methodology, interdisciplinary aspect of science, ethical boundaries, and historical development and social impact. In January of 2025 student artifacts were solicited from the 17 full-time and adjunct faculty who taught core approved courses for C1: Physical Sciences in Winter 2024 and Fall 2024 (PHY 1600, 1610; SCIE 1030; BIO 2300 2310, BI) 1200, 1210; BIO 1090; CHEM 1030). Faculty members submitted the requested randomly selected artifacts: three from each of their course sections, resulting in 54 total student artifacts. Fourteen faculty attended a norming and scoring session in February of 2025 for inter-rater reliability using the Core Curriculum Student Learning Outcomes Rubric for C1: Physical Sciences. The faculty members who attended the norming and scoring sessions were: Alexa Rihana-Abdallah, Anne-Marie Kosi-Kupe, Eva Nyutu, Elena Garcia, Gregory Grabowski, Holly McQuithey, Joel Bonney, Jonathan Finkel, Mara Livezey, Maris Polanco, Michelle Andrzejak, Mohamed Dabaja, Omonseigho Talton, Robert Dalka, Stephanie Conant, and Stokes Baker. Faculty were paired up to assess a set of student artifacts and record the rubric scores in the C1: Physical Sciences Excel Scoring Sheet. Faculty attended a follow-up meeting to review all of the recorded rubric dimension scores and identify student strengths and weaknesses. The rubric contains five-dimension areas that reflect the core outcomes for C1: Physical Sciences . A four-point rubric scale was used (4=capstone, 3 and 2 = milestone, 1=benchmark) that also included NA for not applicable and a zero for when no evidence was present. A score of 3.0 was expected for each dimension area, indicating students' progression to the threshold of the upper milestone level.

5. Results, Planned Actions, and/or Actions Taken

Briefly summarize the assessment results and how they are being used. Include a summary of faculty discourse captured during the norming session, the rubric score and scale, an interpretation of the score, and plans to enhance student learning. *

The set of randomly selected student artifacts yielded mean rubric dimension scores ranging from 1.5 to 3.0, transitioning from lower milestone to the upper milestone threshold (3.0). Students were strongest in "scientific literacy" (3.0) where they had to acquire an understanding of the basic contemporary science literacy that enables discussion of scientific issues at a non-professional level of expertise. Students were not as strong in outcome area "goals, values, and conceptions of social impact" (2.8), where they had to identify the historical development and social impact of science, and conceptions of social impact.

Faculty considered it better to assess students' work in the form of a portfolios rather than one assignment that addressed all three outcomes. Portfolios show how class assignments build off of each other to scaffold learning and understanding of all five C1 outcomes. This choice was especially true for most science courses. An example was given from Biology where students focus on an outcome can be from various assessments.

Faculty Observed several areas of strengths:
• Working in pairs or with other faculty members to do the norming and scoring made the process easier and more robust
• Availability of the spreadsheet was helpful so that faculty could go in and put in their scores

Areas in Need of Strengthening
• Faculty wanted to know if there is a way that the general core area can be discipline specific
• In the core curriculum rubric can the NA and no evidence be defined more clearly instead of just fiving it a score of zero
• For new faculty who are teaching these core curriculum courses can there be examples of what good artifacts/portfolios that capture all the core learning outcomes
• Many of the courses are science based and it might be hard to analyze how the artifacts meet the C1.4 ethical boundaries and C1.5 social impact.
• Faculty suggested that if they are teaching multiple sections of the same course could they have one person submit artifacts for that course we should just submit one of the sections information if the sections have the same information
• It should be clarified that artifacts submitted are assignments intended to meet C1 core outcomes. There was a wide variety of kinds of artifacts submitted and many had nothing to do with the core outcome rubric. Thus, hard to assess if the course was meeting core requirements.

Strategies for Improvement
• This rubric should be shared with all instructors teaching a course in C1 and maybe even require some mention of what parts of the rubric are being addressed in the assignments/assessments given. This would make it much more straight forward when assessment of the core comes around.
• Students should also be made aware of the intention of certain assignments/assessments and how they meet the core.
• The use of a Histogram" in the excel sheet with some bar charts showing the count of each score visualizing data distribution, revealing patterns