Spring 2017
Core Curriculum Assessment Report

of

Knowledge 1 - Mathematics, Social and Natural Sciences, Engineering and Technology

from the

Science

Core Curricular Area

submitted by

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on behalf of the

Science
Core Area Assessment Committee

Methods

How was student work (artifacts) collected for assessment?

For each modality of each course, one section was randomly selected via random number generator. Instructors of the selected courses identified appropriate artifacts and submitted them to the person in each program area who was tasked with doing the assessment work.

What type of artifacts were collected?

The artifacts selected were either items from exams or lab reports.

How were the artifacts sampled for assessment?

Within each section, either all students were selected to submit artifacts (for sections of 30 or less students) or, for large sections, a random sample of up to 30 students were selected. The exact numbers selected were left to the discretion of the assessors.

How were the artifacts scored?

Instructors of the selected course sections identified appropriate artifacts and developed rubrics for their specific artifacts that paralleled the rubric the committee developed for the Knowledge 1 area. Scoring was done by an individual (or individuals) selected within each program area.

How was reliability in scoring determined and ensured?

Many of the artifacts assessed were quantitative in nature (i.e., the student answered 10 of 15 questions correctly for this subarea and was scored a 3), so no replicability was needed due to a lack of subjectivity. For more subjective types of questions we agree that assessing each artifact twice or more would be sound methodologically. However, it was not done due to two concerns: 1) many of the artifacts require some expertise within the field to assess, rubric or no, so additional scorers from within the field would need to be recruited; and 2) many

programs have multiple science core courses which are taught via multiple modalities, which created a rather large assessment workload for these programs already.

Reflection

What was learned from the assessment results?

Most of the students assessed in the science core curricular area were determined to be at the advanced or proficient level (59.6%). Fewer than 13% were scored as not met. Overall we feel that this is demonstrates that most of our students are successfully gaining the knowledge outlined in the Knowledge 1 assessment area.

Continuous Improvement

What changes will be made based upon the assessment results?

We feel that our assessment results demonstrate that the science core is satisfactorily addressing the Knowledge 1 area and that no major changes are needed at this time.

Feedback

What changes are recommended for Core assessment?

We continue to have an issue with the uneven distribution of the workload. As mentioned above, some programs have multiple courses in the science core and they are taught through multiple modalities, which creates a lot of assessment work. We would like to see the Faculty Senate provide funds to hire graduate students, adjunct instructors, or other qualified individuals to help with the gathering and scoring of artifacts for these overburdened programs.

Comments

Other comments?

Several subject areas continue to have trouble getting artifacts from their concurrent courses. For all subjects that offer concurrent courses, we would like to see better coordination between the programs and the high schools. Several members of this committee suggested bringing in someone with both higher ed and teacher education experience to serve as the primary coordinator for all concurrent courses. This person could serve as the liaison between the UA Little Rock programs and the schools offering concurrent courses and could be responsible for ensuring that they provide artifacts for assessment when necessary.

END OF REPORT