

FACULTY GOVERNANCE AGENDA ITEM

Date: 10/19/23

Submitted by: Jennifer Ball, Associate Provost and Chair of the General Education Committee, for the General Education Committee

SUBJECT: Proposal to revise the Quantitative and Scientific Reasoning (QSR) university student learning outcome (USLO)

Description: The General Education Committee proposes to revise the QSR USLO

QSR USLO (current):

Quantitative and Scientific Reasoning and Literacy. Quantitative reasoning involves the ability to work with numerical data and the higher-order thinking skills required to make and understand mathematical arguments. Scientific literacy involves the acquisition and application of skills and knowledge necessary to understand the nature and content of science, and to evaluate scientific arguments using evidence-based reasoning. Students will be able to understand and develop arguments supported by quantitative evidence, clearly communicate those arguments in a variety of formats (using words, tables, graphs, statistical inference, mathematical equations and functions, etc., as appropriate), and apply mathematical and scientific methods to solve problems from a wide array of contexts and everyday situations.

QSR USLO (proposed):

Quantitative and Scientific Reasoning and Literacy.

- a. Quantitative reasoning involves the ability to work with numerical data and the higher-order thinking skills required to make and understand mathematical arguments. Students will be able to understand and develop arguments supported by quantitative evidence, clearly communicate those arguments using words, tables, graphs, statistical inference, or mathematical equations and functions, as appropriate, and apply mathematical methods to solve problems from a wide array of contexts and everyday situations.
- b. Scientific reasoning and literacy involve the acquisition and application of skills and knowledge necessary to understand scientific methods and apply them to observable phenomena. Students will be able to understand, develop, and evaluate arguments supported by scientific evidence, clearly communicate those arguments in a variety of formats, and use scientific methods to solve problems from a wide array of contexts and disciplines.

Rationale:

Last academic year, Washburn University faculty approved a proposal to adopt the general education framework for all public colleges and universities in Kansas beginning in Fall 2024. As part of this framework, six credit hours are determined by the individual college or university (28-29 hours are determined by the common framework). Washburn chose two categories of courses, at three credit hours each, one category of which would address scientific literacy. The General Education Committee asked representatives from every unit who could be considered subject matter experts in this area to come together and draft a proposal for scientific literacy learning outcomes. The General Education

Committee slightly revised the statement, combined it with existing language regarding quantitative reasoning in the current USLO, and is now submitting a revised QSR USLO to the Faculty Senate for consideration.

If approved, part b of this USLO will be used by the General Education Committee to consider and approve courses that will fulfill the scientific literacy general education requirement. The committee expects most courses currently meeting the QSR USLO will be approved for the new USLO. Regardless, they have agreed to accept all courses approved for the current USLO for the new USLO, and review courses over the next few years to determine whether they align with part a or part b of the USLO.

Financial Implications: None

Proposed Effective Date: Fall 2024

Request for Action: Approval by AAC, Faculty Senate

Approved by: *Faculty Senate 11/6/2023*

Attachments Yes No