

GE Quantitative Literacy

I. Regulations

Davis Division Regulation 522 sets forth the Baccalaureate Degree Requirement in General Education. Quantitative Literacy, a component of Core Literacies (522.C), requires 3 units of coursework (522.C.3).

Regulation 523 sets forth the Criteria for General Education Certification of courses, stating: “A course in Quantitative Literacy develops a student’s ability to reason quantitatively and to evaluate quantitative arguments encountered in everyday life.” (523.C.7)

II. Interpretation

The objective of Quantitative Literacy is to educate students to develop quantitative reasoning as a “habit of mind” which includes competency and comfort in working with numerical data as well as the ability to interpret arguments involving numerical data. Courses that meet the quantitative literacy must teach students to engage in mathematical or statistical reasoning about numerical data. They must also either:

1. Teach students to generate arguments about numerical data collected to study events occurring in nature or in human social and political systems
- OR-
2. Teach students to interpret mathematical or statistical arguments made by others about numerical data collected to study events occurring in nature or in human social and political systems

Minimum Elements Checklist

Courses in the Quantitative Literacy must:

ME1) Demonstrate that the course covers either quantitative methods or quantitative reasoning:

- Examples of quantitative methods include – descriptive statistics, inferential statistics, surveys, interviews, probability, field and observational methods, and other data analysis techniques.
- Examples of quantitative reasoning include – formal logic, Boolean logic, symbolic logic, algorithm, symbolic and computer languages, and other quantitative reasoning.

ME2) Provide specific demonstration of topics or arguments to which students apply quantitative methods and/or quantitative reasoning in everyday life.

ME3) Provide specific demonstration and explanation of the evaluation criteria referring to the quantitative literacy.

ME4) Demonstrate that achieving the minimum set of learning objective of the literacy is an integral part of the class.

III. ICMS Submission requirements

The Committee on Courses of Instruction (COCI) evaluates whether the course proposal satisfies the minimum elements checklist above. COCI uses the information provided in the answers to the General Education literacy justification questions and the Expanded Course Description.

Departments requesting that a course be approved for this GE literacy must answer the literacy questions in the Integrated Curriculum Management System (ICMS), as listed below.

For this literacy, COCI evaluates the minimum elements as follows:

- ME1: ICMS literacy question 1
- ME2: ICMS literacy question 2
- ME3: ICMS literacy question 3
- ME4: Expanded Course Description

1. How will the course develop students' abilities to reason quantitatively?
2. How will the course develop students' abilities to evaluate quantitative arguments encountered in everyday life?
3. How will the instructors assess student competency in this GE literacy?

Departments may leave the "ICMS Justification" field blank, or use it to provide any additional information about the GE literacy for this course that may be helpful as COCI reviews the request.