GENERAL EDUCATION NEW COURSE CERTIFICATION REQUEST
• AREA BB: Mathematics/Quantitative Reasoning or Physical and Life Sciences

Complete your responses in the corresponding fields in the **GE BB Curriculog form**

(GE forms are listed under the **"Courses" tab in Curriculog**)

The Definition of Upper Division GE Courses:

Upper Division General Education provides an opportunity for students to learn about areas of study outside their academic major. Upper Division General Education courses assume satisfaction of Lower Division General Education Requirements and develop upper division skills. Courses should not require discipline-specific prerequisites. Designed for non-majors, these courses make explicit the basic assumptions, principles and methods of the disciplinary or interdisciplinary area of study. This conceptual framework and the applicability of these principles and methods should be emphasized throughout the course.

Upper Division General Education courses should help students see how disciplines, ideas, issues and knowledge are often interrelated, intersecting and interconnected. Upper Division General Education courses should present knowledge which can enhance students' lives outside the classroom or their studies in other subjects. These courses should also provide students with a classroom environment that fosters independent, active,engaged learning and a genuine curiosity about the subject matter.

Upper Division General Education courses shall be three-unit courses so that three such courses will exactly correspond with the 9-unit Upper Division General Education requirement of the CSU.

Upper division general-education students may have fulfilled their lower division area B requirements in broad, interdisciplinary courses or in a different discipline than the discipline in which this course is offered. Please explain how this course introduces such students to the basic assumptions, principles and methods of the discipline, and how connection is made between these fundamentals and the particular applications emphasized in the course.

Criteria for Upper Division Area BB Courses:

These questions will help the General Education Committee decide if the course belongs in the Mathematics/Quantitative Reasoning or Physical and Life Sciences category

~Specify how the course requires students to use reasoning skills characteristic of common scientific and mathematical practice to do one or more of the following: to solve problems, to interpret observations, to make predictions, to design experiments for the testing of hypotheses, or to prove theorems. Examples given should illustrate how these skills are used throughout the course.

~Specify how both past successes and current uncertainties in science or mathematics are well represented in the course, in order that the cumulative, historical nature of the development of science and mathematics can be illustrated. Give examples covered in the course of (a) older, well-established laws and theories that are no longer debated in scientific and mathematical circles, and (b) issues where either fundamental questions remain unanswered or where the application of well-established principles to new situations carries some uncertainty or controversy.

Assessment for Upper Division Area BB Courses:

This question will help the General Education Committee to evaluate whether you have planned sufficiently for assessing the success of your course.

~Give examples explaining how the work assigned to students (quizzes, tests, essays, projects, etc.) allows you to measure how successful individual students are in meeting the UDGE learning objectives for this course. Please attach an example of the type of assignment you will use to evaluate how successfully students meet the UDGE learning objectives.

~If you use any course assessment activities (e.g., "pre" and "post" testing, class-wide analysis of individual test questions, etc.) that measure whether or not the class as a whole successfully meets the General Education learning objectives for this course, please attach examples of these as well.