

UGEC Criteria for the Life and Physical Sciences Menu
Draft, March 2022

- I. Courses included in the general education menu of courses must meet these general criteria:

Courses included in this menu should generally satisfy ACU's University Requirements (General Education). They will normally have lower-level numbering, be free of prerequisite and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

- II. Courses approved for inclusion in the Life and Physical Sciences menu should meet the following criteria:

- A. **Definition:** Courses within this domain use the methods and models of the life and physical sciences to describe, explain, and predict phenomena in the physical world; they employ empirical evidence, scientific principles, and interactions among natural phenomena to understand the world around us.
- B. **Disciplines:** Life and physical sciences typically include astronomy, biology, chemistry, physics, agriculture and environmental science, and geology. Petitions for course approval from departments outside of these disciplines can be made to the UGEC.
- C. **Prerequisites and co-requisites:** Courses will typically have no more than one prerequisite. Additionally, many will have a laboratory co-requisite. Exceptions should be made for the second course in a lower division two-semester sequence which may have multiple prerequisites and a corequisite (e.g., BIOL 123, Introductory Biology II).
- D. **Life and Physical Sciences student learning outcomes:** To be included in this menu, a course must meet all of the following general education student learning outcomes for Life and Physical Sciences:
 - 1. C2: Analyze quantitative data, published writing, or observable phenomena to draw informed conclusions;
 - 2. C3: Interpret mathematical and/or logical models such as formulas, graphs, tables and schematics, and draw inferences from them; and
 - 3. C4: Integrate new data into their existing knowledge.

- III. Include the following in an application for this menu:

- A. Course number and name
- B. Is the course a lower-division course in one of the disciplines listed in II. B.?

1. If yes, continue to C.
 2. If no, please explain how this course meets the definition of life or physical science in II. A.
- C. Course prerequisites and/or co-requisites.
1. List all prerequisites and/or co-requisites.
 2. Does the course have more than one prerequisite and/or more than one corequisite?
 - a) If yes, continue to 3.
 - b) If no, continue to D.
 3. Is this the second course in a two sequence course?
 - a) If yes, continue to D.
 - b) If no, please explain why this course should be included in the Life and Physical Science menu.
- D. Explain the assessment method (e.g., assignment, exam, etc.) instructors will use to assess each of the general education student learning outcomes for Life and Physical Sciences (see table).

Outcome	Assessment Method
C2: Analyze quantitative data, published writing, or observable phenomena to draw informed conclusions.	
C3: Interpret mathematical and/or logical models such as formulas.	
C4: Integrate new data into their existing knowledge.	

IV. The following rubric is to be used for annual assessment.

- A. This rubric is included in this document for information purposes only. It should be used annually to assess each course in the Life and Physical Sciences menu.
- B. While one artifact could be used to assess all three learning outcomes, the number of artifacts needed for assessment may vary by course.
- C. Assessment should be completed only for those students who complete a course.

Outcome	Assessment Method	Proficiency Target: 50% of students made a C or better on the assessment	Ideal Target: 70% of students made a C or better on the assessment
C2: Analyze quantitative data, published writing, or observable phenomena to draw informed conclusions.			
C3: Interpret mathematical and/or logical models such as formulas.			
C4: Integrate new data into their existing knowledge.			