Outcome c. Graduates will demonstrate an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

Tools used:
Course Specific Rubrics

Data Collection:
Rubrics are completed by course instructors through evaluation of specific coursework, including in-class assignments, homework assignments, exams, and projects

Frequency of Data Collection:
The data are collected every time courses are taught.

Data Analysis:
The data obtained are analyzed every year by the instructor and by the program faculty members.

Closing the Loop:
This outcome is subject to review every year based on performance criteria and metrics and specific action items are developed, if necessary, to revise the content or instruction of the courses. The analyzed data are presented separately to the following groups in meetings.

a) Feedback to students on all assignments
b) Feedback to and discussion with faculty on rubric results
c) Integration of results from faculty discussion on rubric results

Performance criteria and metrics:
Rubrics for each course are given on the BMEG assessment page (https://cbe.statler.wvu.edu/home/biomedeng/bmeg-assessment) or can be reached by following the link on the course number in the table below.

Students should reach a level of proficiency defined as a goal metric value of 3.0 based on the rubric scale of

(1) not proficient,
(2) progressing to proficiency,
(3) proficient, and
(4) superior proficiency.

Course Assessed	Performance Criteria Number	Aspect used on rubric
BMEG 311	Performance Criterion 1	Select biomaterials for a given biomedical application including immune response, mechanical properties, and degradation mechanisms
	Performance Criterion 2	Utilize biomaterial properties (biological and chemical) to design novel biomedical devices or enhance devices currently implemented
BMEG 455/456	Performance Criterion 1	Formulate strategies to solve an open-ended design problem related to biomedical engineering
	Performance Criterion 2	Address safety issues associated with the biomedical engineering problem being solved
	Performance Criterion 3	Address social, ethical, regulatory and economic issues, including industry and government standards for experimentation and design