

Outcome h. Graduates will demonstrate a broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context.

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 201	Performance Criterion 1	Discuss what biomedical engineering is and how it can provide solution to healthcare-related issues
	Performance Criterion 2	Analyze how the development of technology, devices and/or instrumentation can enhance the quality and precision of health care for disease diagnosis, treatment, and prevention
BMEG 421	Performance Criterion 1	Identify current bottle neck limitations in the area of biomedical engineering and highlight the scientific breakthrough that will be needed in order to advance this profession.
BMEG 455/456	Performance Criterion 1	Address ethical, societal, health and safety issues as associated with the biomedical engineering problem being solved