Outcome k. Graduates will demonstrate an ability to use techniques, skills, and modern engineering tools necessary for engineering practice.

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 Criterion
BMEG 230	1	Use MATLAB and Excel to solve problems related to applications of engineering in biological systems
BMEG 310	1	Interpret biomedically-relevant images to determine the measure of image quality affected as related to modality used and image processing
	2	Perform image processing and explain the steps of the process
BMEG 420	1	Utilize LTSpice for biomedical signal processing
	2	Utilize SolidWorks software for biomedical instrumentation design
BMEG 455/456	1	Demonstrate the ability to use relevant software tools beyond Microsoft Office programs to create prototypes and supporting items including flowcharts, 3-d models, and computational models