

College of Engineering Glossary of Assessment Terminology

- **Assessment**

One or more processes that identify, collect, and prepare data to evaluate the attainment of student outcomes. Effective assessment uses relevant direct, indirect, quantitative, and qualitative measures as appropriate to the objective or outcome being measured. Appropriate sampling methods may be used as part of an assessment process.
- **Basic Science**

Basic sciences are disciplines focused on knowledge or understanding of the fundamental aspects of natural phenomena. Basic sciences consist of chemistry and physics and other natural sciences including life, earth, and space sciences.
- **Capstone**

A culminating course that allows students who are nearing graduation to “put together” the knowledge and skills they have acquired in their program and apply it to a major project or assignment.
- **College-Level Mathematics**

College-level mathematics consists of mathematics that requires a degree of mathematical sophistication at least equivalent to that of introductory calculus. For illustrative purposes, some examples of college-level mathematics include calculus, differential equations, probability, statistics, linear algebra, and discrete mathematics.
- **Complex Engineering Problems**

Complex engineering problems include one or more of the following characteristics: involving wide-ranging or conflicting technical issues, having no obvious solution, addressing problems not encompassed by current standards and codes, involving diverse groups of stakeholders, including many component parts or sub-problems, involving multiple disciplines, or having significant consequences in a range of contexts.
- **Engineering Science**

Engineering sciences are based on mathematics and basic sciences but carry knowledge further toward creative application needed to solve engineering problems. These studies provide a bridge between mathematics and basic sciences on the one hand and engineering practice on the other.
- **Evaluation**

One or more processes for interpreting the data and evidence accumulated through assessment practices. Evaluation determines the extent to which program educational objectives and student outcomes are being attained. Evaluation results in decisions and actions regarding program improvement.

- **Performance Indicator**

Performance Indicators are specific, measurable statements identifying the performances required to meet the outcome; confirmable through evidence. They are high level indicators of achievement of the program outcomes. Each of these might also then have a high level rubric that can be used by multiple persons in a consistent fashion.

2.1.1. EX: Students will be able to locate specific technical information (data, equations,...).

- **Program Educational Objectives**

Broad statements that describe what graduates are expected to attain within a few years of graduation. Program educational objectives are based on the needs of the program's constituencies.

- **Student Outcomes**

Statements that describe what students are expected to know and be able to do by the time of graduation. These relate to skills, knowledge, and behaviors that students acquire as they progress through the program. Student Outcomes can be assessed using Performance Indicators (sometimes called Performance Criteria). Performance indicators are then measured using strategies and rubrics. The strategies are the specific item that will be used for the measurement and assessment.

- **Team**

A team consists of more than one person working toward a common goal and should include individuals of diverse backgrounds, skills, or perspectives.

