

The mapping between the criteria are presented in three tables, one for the introductory section including definitions (Table 1) and one for each of the two criteria (Criterion 3 in Table 2 and Criterion 5 in Table 3). Each table contains one column with the current (Cycle 2017-18) elements and one with the language that was approved by the Engineering Area Delegation on October 20, 2017.

Table 1. Changes in Introduction , Including Definitions

Current Language EAC Criteria effective 2017-18 and 2018-19 Cycles	New Language Approved by the EAD October 20, 2017 Applicable beginning in the 2019-20 cycle
<p>These criteria are intended to assure quality and to foster the systematic pursuit of improvement in the quality of engineering education that satisfies the needs of constituencies in a dynamic and competitive environment. It is the responsibility of the institution seeking accreditation of an engineering program to demonstrate clearly that the program meets the following criteria.</p>	<p>These criteria apply to all accredited engineering programs.</p>

<p>Not explicitly defined in current criteria.</p>	<p><u>Complex Engineering Problem</u> 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.</p>
<p>From current Criterion 3: ... within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability</p> <p>From current Criterion 5: Engineering design is the process of devising a system, component, or process to meet desired needs. It is a decision making process (often iterative), in which the basic sciences, mathematics and the engineering sciences are applied to convert resources optimally to meet these stated needs.</p>	<p><u>Engineering Design</u> Engineering design is a process of devising a system, component, or process to meet desired needs and specifications within constraints. It is an iterative, creative, decision making process in which the basic sciences, mathematics, and engineering sciences are applied to convert resources into solutions. Engineering design involves identifying opportunities, developing requirements, performing analysis and synthesis, generating multiple solutions, evaluating solutions against requirements, considering risks, and making tradeoffs, for the purpose of obtaining a high quality solution under the given circumstances. For illustrative purposes only, examples of possible constraints include accessibility, aesthetics, codes, constructability, cost, ergonomics, extensibility, functionality, interoperability, legal considerations, maintainability, manufacturability, marketability, policy, regulations, schedule, standards, sustainability, or usability.</p>
<p>Currently in Criterion 5: The engineering sciences have their roots in mathematics and basic sciences but carry knowledge further toward creative application. These studies provide a bridge between mathematics and basic sciences on the one hand and engineering practice on the other.</p>	<p><u>Engineering Science</u> 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.</p>
<p>Not explicitly defined in current criteria.</p>	<p><u>Team</u>– A team consists of more than one person working toward a common goal and should include individuals of diverse backgrounds, skills, or perspectives.</p>



Table 3. Changes in Criterion 5- Curriculum

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Current Language EAC Criteria effective 2017-18 and 2018-19 Cycles	New Language Approved by the EAD October 20, 2017 Applicable beginning in the 2019-20 cycle
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