Self-evaluation by CDIO Standards 2.0

Ref CDIOStds&Rubricsv2.0 2010Dec8

University: **Date:**

Std no	Name	Short description	Value	Remark	Rubrics - Scale and Criteria
1	The Context*	Adoption of the principle that product, process, and system lifecycle development and deployment -- Conceiving, Designing, Implementing and Operating -- are the context for engineering education			5 Evaluation groups recognize that CDIO is the context of the engineering program and use this principle as a guide for continuous improvement. 4 There is documented evidence that the CDIO principle is the context of the engineering program and is fully implemented. 3 CDIO is adopted as the context for the engineering program and is implemented in one or more years of the program. 2 There is an explicit plan to transition to a CDIO context for the engineering program. 1 The need to adopt the principle that CDIO is the context of engineering education is recognized and a process to address it has been initiated. 0 There is no plan to adopt the principle that CDIO is the context of engineering education for the program.
2	Learning Outcomes	Specific, detailed learning outcomes for personal and interpersonal skills, and product, process, and system building skills, as well as disciplinary knowledge, consistent with program goals and validated by program stakeholders.			5 Evaluation groups regularly review and revise program learning outcomes, based on changes in stakeholder needs. 4 Program learning outcomes are aligned with institutional vision and mission, and levels of proficiency are set for each outcome. 3 Program learning outcomes are validated with key program stakeholders, including faculty, students, alumni, and industry representatives. 2 A plan to incorporate explicit statements of program learning outcomes is established. 1 The need to create or modify program learning outcomes is recognized and such a process has been initiated. 0 There are no explicit program learning outcomes that cover knowledge, personal and interpersonal skills, and product, process and system building skills.
3	Integrated Curriculum	A curriculum designed with mutually supporting disciplinary courses, with an explicit plan to integrate personal and interpersonal skills, and product, process, and system building skills			5 Stakeholders regularly review the integrated curriculum and make recommendations and adjustments as needed. 4 There is evidence that personal, interpersonal, product, process, and system building skills are addressed in all courses responsible for their implementation. 3 Personal, interpersonal, product, process, and system building skills are integrated into one or more years in the curriculum. 2 A curriculum plan that integrates disciplinary learning, personal, interpersonal, product, process, and system building skills is approved by appropriate groups. 1 The need to analyze the curriculum is recognized and initial mapping of disciplinary and skills learning outcomes is underway. 0 There is no integration of skills or mutually supporting disciplines in the program.
4	Introduction to Engineering	An introductory course that provides the framework for engineering practice in product, process, and system building, and introduces essential personal and interpersonal skills			5 The introductory course is regularly evaluated and revised, based on feedback from students, instructors, and other stakeholders. 4 There is documented evidence that students have achieved the intended learning outcomes of the introductory engineering course. 3 An introductory course that includes engineering learning experiences and introduces essential personal and interpersonal skills has been implemented. 2 A plan for an introductory engineering course introducing a framework for practice has been approved. 1 The need for an introductory course that provides the framework for engineering practice is recognized and a process to address that need has been initiated. 0 There is no introductory engineering course that provides a framework for practice and introduces key skills.
5	Design-Implement experiences	A curriculum that includes two or more design-implement experiences, including one at a basic level and one at an advanced level			5 The design-implement experiences are regularly evaluated and revised, based on feedback from students, instructors, and other stakeholders. 4 There is documented evidence that students have achieved the intended learning outcomes of the design-implement experiences. 3 At least two design-implement experiences of increasing complexity are being implemented. 2 There is a plan to develop a design-implement experience at a basic and advanced level. 1 A needs analysis has been conducted to identify opportunities to include design-implement experiences in the curriculum. 0 There are no design-implement experiences in the engineering program.

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6	Engineering Workspaces	Engineering workspaces and laboratories that support and encourage hands-on learning of product, process, and system building, disciplinary knowledge, and social learning			5 4 3 2 1 0	Evaluation groups regularly review the impact and effectiveness of workspaces on learning and provide recommendations for improving them. Engineering workspaces fully support all components of hands-on, knowledge, and skills learning. Plans are being implemented and some new or remodeled spaces are in use. Plans to remodel or build additional engineering workspaces have been approved by the appropriate bodies. The need for engineering workspaces to support hands-on, knowledge, and skills activities is recognized and a process to address the need has been initiated. Engineering workspaces are inadequate or inappropriate to support and encourage hands-on skills, knowledge, and social learning.
7	Integrated Learning Experiences	Integrated learning experiences that lead to the acquisition of disciplinary knowledge, as well as personal and interpersonal skills, and product, process, and system building skills			5 4 3 2 1 0	Courses are regularly evaluated and revised regarding their integration of learning outcomes and activities. There is evidence of the impact of integrated learning experiences across the curriculum. Integrated learning experiences are implemented in courses across the curriculum. Course plans with learning outcomes and activities that integrate personal and interpersonal skills with disciplinary knowledge has been approved. Course plans have been benchmarked with respect to the integrated curriculum plan. There is no evidence of integrated learning of disciplines and skills.
8	Active Learning	Teaching and learning based on active experiential learning methods			5 4 3 2 1 0	Evaluation groups regularly review the impact of active learning methods and make recommendations for continuous improvement. There is documented evidence of the impact of active learning methods on student learning. Active learning methods are being implemented across the curriculum. There is a plan to include active learning methods in courses across the curriculum. There is an awareness of the benefits of active learning, and benchmarking of active learning methods in the curriculum is in process. There is no evidence of active experiential learning methods.
9	Enhancement of Faculty Competence	Actions that enhance faculty competence in personal and interpersonal skills, and product, process, and system building skills			5 4 3 2 1 0	Faculty competence in personal, interpersonal, product, process, and system building skills is regularly evaluated and updated where appropriate. There is evidence that the collective faculty is competent in personal, interpersonal, product, process, and system building skills. The collective faculty participates in faculty development in personal, interpersonal, product, process, and system building skills. There is a systematic plan of faculty development in personal, interpersonal, product, process, and system building skills. A benchmarking study and needs analysis of faculty competence has been conducted. There are no programs or practices to enhance faculty competence in personal, interpersonal, product, process, and system building skills.
10	Enhancement of Faculty Teaching Competence	Actions that enhance faculty competence in providing integrated learning experiences, in using active experiential learning methods, and in assessing student learning			5 4 3 2 1 0	Faculty competence in teaching, learning, and assessment methods is regularly evaluated and updated where appropriate. There is evidence that the collective faculty is competent in teaching, learning, and assessment methods. Faculty members participate in faculty development in teaching, learning, and assessment methods. There is a systematic plan of faculty development in teaching, learning, and assessment methods. A benchmarking study and needs analysis of faculty teaching competence has been conducted. There are no programs or practices to enhance faculty teaching competence.
11	Learning Assessment	Assessment of student learning in personal and interpersonal skills, and product, process, and system building skills, as well as in disciplinary knowledge			5 4 3 2 1 0	Evaluation groups regularly review the use of learning assessment methods and make recommendations for continuous improvement. Learning assessment methods are used effectively in courses across the curriculum. Learning assessment methods are implemented across the curriculum. There is a plan to incorporate learning assessment methods across the curriculum. The need for the improvement of learning assessment methods is recognized and benchmarking of their current use is in process. Learning assessment methods are inadequate or inappropriate.

12	Program Evaluation	A system that evaluates programs against these twelve standards, and provides feedback to students, faculty, and other stakeholders for the purposes of continuous improvement				
					5	Systematic and continuous improvement is based on program evaluation results from multiple sources and gathered by multiple methods.
					4	Program evaluation methods are being used effectively with all stakeholder groups.
					3	Program evaluation methods are being implemented across the program to gather data from students, faculty, program leaders, alumni, and other stakeholders.
					2	A program evaluation plan exists.
					1	The need for program evaluation is recognized and benchmarking of evaluation methods is in process.
					0	Program evaluation is inadequate or inconsistent.

Comments:

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