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The Development of a Project of Facility Design to Achieve a Specific Student Outcome for a Program of Industrial Engineering Credited by ABET

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Author Note: We are full-Time Professor for The UANL; we thank the students of the career of Industrial Engineer with minor in Management for their effort in carrying out the projects, which allows the development of these research works and keeps the school with international accreditations.

Abstract: All the Engineering programs are trying to prove that they are competent for a global world, ABET is one of the principal accreditations for proving this purpose. One of the complex Outcome to get for ABET is the Outcome “C”, it says: “an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability”; for getting this outcome in our program (Industrial Engineer with minor in Management) we develop a project related to facility design. This project has a structure that ensures a better development of this outcome, we have a rubric assessment that involves aspects related to proposals for improvement about a specific situation; that implicates that our students apply their knowledge about production systems and improvement methodologies to give proposals that resolve a practical case. We are achieving that the student makes a situation diagnosis where opportunity for improvement is found, involving proposals based on data and linked to the discipline of industrial engineering tools. They also carry a financial and operational assessment, clearly stating the impact of their proposals to confirm the feasibility of the project realization. We can be sure that the alumni will identify areas with a high sense of analysis, supported with real, hard data that allow them to set criteria for prioritizing the needs of the organization.

Keywords: Assessment, Project, Facility Design