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The Impact of an Industrial Engineering Capstone Project in the Development of Program Specific Student Outcomes

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Abstract: The theoretical and practical application of industrial engineering principles, in an entrepreneurial and creative fashion, in the development of a product or service which follow the Production Part Approval Process (PPAP) and Advance Product Quality Planning (APQP) methodologies is used to integrate all the knowledge acquired by the student within the program, because it considers all aspects of new product development such as work methods development, optimization of production systems, quality systems management, equipment maintenance management, alternative infrastructure decisions, logistics systems design, team & group activities, identify and develop human talent; all of this to help the student improve decision making through the Capstone project development. PPAP helps to ensure a better communication between a customer and a supplier while the APQP is a structured process aimed to ensure customer satisfaction when new products or new processes take place. Taking advantage of these methodologies in the final Capstone project we expect our students will develop the specific outcomes which are needed by an Industrial Engineer to perform effectively in the Industrial Environment.

Keywords: Student Outcomes, PPAP, APQP, Industrial Engineer, Improvement, Inventory, Profit