



School of Industrial Engineering

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May 31, 2013

Report for: The Israeli Council of Higher Education
From: Professor Shimon Y. Nof

Re: The Ariel University Center of Samaria Implementations of the Recommendations made by the March 2011 External Evaluation Committee of Industrial Engineering and Management (IEM) Programs in Israel

A. Sources:

This evaluation of implementation report is based on

1. March 2011 Committee for the Evaluation of Industrial Engineering and Management Study Programs: The Ariel University Center of Samaria, the Department of Industrial Engineering and Management.
2. April 2011 Regulations for the Follow-up Process Regarding the Implementation of CHE QA Evaluation Committees' Recommendations.
3. 26.7.2011 CHE decision about IEM QA Committee reports.
4. Response to the report of the Committee for the Evaluation of Industrial Engineering and Management study program, and Implementation Plan, Department of Industrial Engineering and Management, Ariel University Center of Samaria, 30.10.2011.
5. נוהל מעקב אחר יישום המלצות הוועדות להערכת איכות והחלומות מל"ג בנושא, ספטמבר 2012
6. Intermediate report on the implementation of the quality assessment committee report, Ariel University Center, October 2012.
7. E-mails from Tamar Maagan-Efrati, Quality Assessment & Assurance Unit, CHE, December 18, 2012 -- May 21, 2013.

B. Implementation of Recommendations to the University/College

1. Academic Faculty:

Develop alternative criteria for the promotion of college faculty that do not include research accomplishments as a key requirement – *No feedback available [expected in 2-3 years]*

2. General:

- a. Use IEM expertise to advise process improvement as needed at the institution – *No feedback available [expected in 1-3 years]*
- b. Incent, recognize, and reward greater collaboration within the institution and between IEM programs in other universities and colleges – *Initial implementation [expected in 1-3 years]*

C. Implementation of Recommendations to the University/College and the Department of IEM

Same as B-2.

D. Implementation of Recommendations to the Department of IEM

1. Mission & Goals:
 - a. Develop systematic processes – *Partial implementation [expected in 1-2 years]*
 - b. Determine a unique mission niche, strategy, and schedule – *Initial implementation [expected in 1-2 years]*
 - c. Enhances student learning based on strategy and systematic self assessment – *Initial implementation [expected in 1-2 years]*
2. Study Program:
 - a. Lack of senior rank faculty as instructors – *Partial implementation [expected in 3-5 years]*
 - b. Reduce extensive use of adjunct faculty – *Initial implementation [expected in 3-5 years]*
 - c. Stabilize before starting new academic programs – *Partial implementation [expected in 3-5 years]*
3. Academic Faculty:
 - a. At least 8 senior rank full time IEM faculty needed – *Partial implementation [expected in 3—5 years]*
 - b. Department headcount should not include faculty appointments under 25% -- *Implemented*
4. Students: Reduce unacceptably high student/faculty ratio (~ 60-70) – *Still challenged [expected in 3-5 years]*
5. General:
 - a. Apply IEM tools to the department's own internal processes – *Partial implementation [expected in 1-2 years]*
 - b. Greater collaboration within the institution, and between IEM programs – *Initial implementation [expected in 1-3 years]*
 - c. Encourage increase of the English content in IEM programs – *Planned implementation [expected in 1-2 years].*

E. Analysis of Evaluation

The IEM Department, supported by the institutional level, has seriously addressed all the recommendations, has implemented, or is in the process of implementing most of the external committee recommendations. I commend them for their efforts.

- (1) *Major challenges:* The three major challenges (as recognized also by the department) are the lack of solid core senior faculty members with full time appointment; lack of systematic processes for continuous improvement and their corresponding action plans; and lack of distinct niche distinguishing their program from other IEM programs of higher education in Israel.
- (2) *Senior full time IEM faculty:* In terms of senior full time core IEM faculty, a minimum of eight were recommended. This challenge is still evident although it is in good progress of being addressed. Of the nine now listed as senior full time IEM faculty, three are listed as having significant appointments also in other institutions.
- (3) *Continuous improvement and program distinction:* Regarding systematics for continuous improvement and distinctive niche strategy, the department began forming an advisory board, which will help increase students' involvement in industry and update/refine the academic program. But while forming such an advisory board is a useful plan, its effectiveness will depend on further and then consistent implementation.
- (4) *Program niche:* The department has identified three distinct niches (robotics; computer aided manufacturing; human factors) and has extended labs, projects, and research projects in these areas. A long-term implementation plan and schedule, however, have to be developed as part of a clear strategic planning process.
- (5) *Other recommendations being implemented:* Good steps are being taken in the right direction, with a few observations, as follows.
 - a. The department has extended applied engineering studies as elective courses in collaboration with industry. While the planned collaboration with leading Israeli industry can be relevant to the goals and mission of the department, a delicate balance must be struck between the number of applied engineering elective courses, and the objective of B.Sc. degree in engineering (as opposed to technology training.)
 - b. The department revised the 2-semester final project course by adding to it (1) a third semester for learning R&D tools; (2) a new research project course. Research for selected, advanced undergraduate students is valuable if effective guidance is planned and provided.
- (6) Additional general comments appear in the CHE Implementation Report, and the General State of IEM Programs in Israel Report.

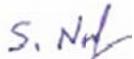
F. Current State of the IEM Department, Conclusions, and Recommendations

This IEM college department, accredited in 1997, has taken major strides for improvement, with strong institutional support. It has provided adequately detailed information (except items B1; 2a above) in several reference documents.

Since the external review, it has successfully added full time IEM senior faculty and has concrete plans for adding a few more. It has also made efforts to increase the number of core IEM courses being taught by full time IEM senior faculty. On moving from ad hoc "start-up" style operations and maturing with systematic procedures and strategic planning, the department has taken initial steps and still faces some challenges. With a relatively high number of students, it is also still being challenged in terms of the student to faculty ratio.

The leadership of both the institution and department, and the faculty are commended for their commitment to the success of the IEM program and of their students. Care must be taken to balance the applied courses and applied research with the objectives of a B.Sc. college education. Attention must also be given to the external committee recommendation to first stabilize this study program before beginning any new IEM programs within this department.

Sincerely,



Shimon Y. Nof