

July 21, 2013

Report for: The Israeli Council of Higher Education

From: Professor Shimon Y. Nof

Re: The ORT Braude College 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: ORT Braude College, 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. מעקב אחר ביצוע החלטת המל"ג בנוגע לדו"ח הוועדה להערכת איכות הלימודים בהנדסת תעשייה וניהול, המכללה האקדמית להנדסה אורט בראודה, 1 אוקטובר, 2011, ג' תשרי, תשע"ב
5. נוהל מעקב אחר יישום המלצות הוועדות להערכת איכות והחלטות מל"ג בנושא, ספטמבר, 2012
6. Implementation Report upon the Recommendations of the Committee for the Evaluation of IE&M Study Programs, ORT Braude College, October 22, 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 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 – *Implemented*
- b. The current space allocated to the department is almost adequate except for faculty offices, but will not accommodate significant future growth of the program – *Planned implementation [expected in 1-3 years]*

- c. 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 College and the Department of IEM

Same as B-2.

D. Implementation of Recommendations to the Department of IEM

1. Mission & Goals:

- a. Determine a unique mission niche, strategy, and schedule – *Initial implementation [expected in 1-2 years]*
- b. Focus on unique role as a world research leader in the scholarship of engineering education that achieves outstanding opportunities for underprepared engineering students -- *Implemented*
- c. Enhances student learning based on strategy and systematic self assessment – *Initial implementation [expected in 1-2 years]*
- d. A shift in focus away from the undergraduate program risks a loss of the department's competitive advantage – *Challenged implementation [expected in 1-3 years]*.

2. Study Program:

- a. Expand the IEM core topics in the curriculum – *Incomplete implementation [expected in 1-3 years]*
- b. Should remain focused on the undergraduate program, which has achieved success and stature in spite of the highly variable student input – *Initial implementation [expected in 1-2 years]*
- c. If any masters program is implemented, it should be a professional applied masters program without a thesis, and the program augmentation should be undertaken with caution and careful thought – *Initial implementation [expected in 1-2 years]*.

3. Academic Faculty:

- a. Recruit new IEM faculty – *Partial implementation [expected in 3-5 years]*
- b. Expand the tightly constrained faculty resources, to continue performing very well and delivering a high quality experience for this unique and special program for underserved undergraduate students – *Unclear implementation [expected in 1-3 years]*
- c. Create individual offices for faculty members – *Planned implementation [expected in 1-3 years]*

4. Students:

- a. Reduce the high student-faculty ratio of approximately 50-1 – *Implemented*
- b. Develop a process to track excellent students and provide them with special counseling – *Implemented*

- c. Enrich students' experience and learning through taking part in competitions and professional social networks – *Initial implementation [expected in 1-3 years]*
5. General:
- a. Strengthen connections with employers of their graduates and alumni – *Initial 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 – *Implemented.*

E. Analysis of Evaluation

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

- (1) *Major challenges:* The three major challenges are the lack of IEM faculty members with full time appointment; need to expand the IEM core topics in the curriculum; and the faculty teaching and service overload.
- (2) *Full time IEM faculty:* In terms of full time core IEM faculty, a net three new IEM faculty are reported as added. Out of the fifteen IEM faculty reported, only four hold at least 80% position with the department. Hence, this challenge is still evident although it is in good progress of being addressed.
- (3) *Expanding the IEM core courses in the curriculum:* Some course modifications were implemented in three existing core IEM courses. Expanding existing courses in a relevant way is useful, but it may not be adequate expansion of IEM core topics taught as required core courses in the curriculum, as recommended. Furthermore, there may be too many required versus elective courses in the curriculum.
- (4) *Reducing faculty heavy teaching and service workload:* The department has shifted the workload budget of some faculty to research, and plans to continue this approach. Adding more full time IEM faculty will also help. On the other hand, adding masters program courses would further stretch the capacity of the faculty and may diminish the quality of the unique undergraduate IEM program accomplishments.
- (5) *Other recommendations being implemented:* Good steps are being taken in the right direction, with a few observations, as follows.
 - a. A process and system for tracking excellent students and providing them with special counseling and learning options has been developed and initially implemented. It is viewed as an effective implementation in the right direction.
 - b. Actions have been taken for enriching students' experience and learning through social networks and competitions. In addition to international students meetings and competitions, national and regional workshops and competitions may be valuable and less costly.
- (6) Additional general comments appear in the CHE Implementation Report, and the General State of IEM Programs in Israel Report.

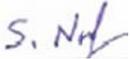
F. Current State of the IEM Department, Conclusions, and Recommendations

The IEM department of ORT Braude college has excelled in its ability to enroll students from a broad range of preparation levels and abilities, and then working with them to correct individual educational deficiencies, producing strong IEM graduates to serve the nation's needs. It has also excelled in its self-assessment processes and continuous improvement activities. This department has provided adequately detailed information (except items B1; D3b above) in several reference documents.

Since the external review, it has successfully added full time IEM faculty and has concrete plans for adding a few more. It has also made initial efforts to expand the contents of three core IEM courses being taught by IEM faculty, and should continue to work on increasing the number IEM core courses, as opposed to elective courses. With a limited number of full time senior IEM faculty in this department and still relying on non-IEM faculty and adjunct faculty for teaching many of the courses, and relatively high number of students, it is also still being challenged in terms of the student to IEM faculty ratio.

The leadership of the institution and department, the staff and the faculty are applauded for their commitment to the success of the IEM program and of their students. Care must be taken to balance the undergraduate program and applied research with the objectives of a B.Sc. college education, and the emerging masters programs.

Sincerely,



Shimon Y. Nof