



## **Committee for the Evaluation of Nutritional Sciences Study Programs**

### **General Report**

**July 2012**

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## **Chapter 1: General Background**

At its meeting on July 25, 2010, the Council for Higher Education (CHE) decided to evaluate study programs in the field of Nutritional Sciences during the academic year 2011 – 2012.

Following the decision of the CHE, the Minister of Education, who serves ex officio as Chairperson of the CHE, appointed a Committee consisting of:

- Prof. Alice H. Lichtenstein, Friedman School of Nutrition Science and Policy, Tufts University, USA –Chair
- Prof. Judith Gilbride, Department of Nutrition, Food Studies & Public Health, NYU, USA
- Prof. Shoshana Mokady, Department of Food Engineering & Biotechnology, Technion, Israel
- Prof. Maret G. Traber, School of Biological and Population Health Sciences, Oregon State University, USA
  
- *Ms. Yael Franks* - Coordinator of the Committee on behalf of the CHE.

Within the framework of its activity, the Committee was requested to:<sup>1</sup>

1. Examine the self-evaluation reports, submitted by the institutions that provide study programs in Nutritional Sciences, and to conduct on-site visits at those institutions.
2. Submit to the CHE an individual report on each of the evaluated academic units and study programs, including the Committee's findings and recommendations.
3. Submit to the CHE a general report regarding the examined field of study within the Israeli system of higher education including recommendations for standards in the evaluated field of study.

The entire process was conducted in accordance with the CHE's Guidelines for Self-Evaluation (of October 2010).

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<sup>1</sup> The Committee's letter of appointment is attached as **Appendix 1**.

## **Chapter 2-Committee Procedures**

The Committee held its first meetings on January 17, 2012, during which it discussed fundamental issues concerning higher education in Israel, the quality assessment activity, as well as Nutritional Sciences Study programs.

In January 2012, the Committee held its visits of evaluation, and visited Ariel University Center of Samaria, the Hebrew University of Jerusalem and Tel Hai Academic College. During the visits, the Committee met with various stakeholders at the institutions, including management, faculty, staff, and students.

This report deals with Nutritional Sciences study programs in Israel.

## **Chapter 3: Evaluation of Nutritional Sciences**

### **Study Program in Israel**

*\*This Report relates to the situation current at the time of the visit to the institutions, and does not take account of any subsequent changes. The Report records the conclusions reached by the Evaluation Committee based on the documentation provided by the institutions, information gained through interviews, discussion and observation as well as other information available to the Committee.*

#### **Preface**

This evaluation process comes at a propitious time. Israel appears to face a scarcity of individuals trained at the doctoral level in Nutritional Sciences to support the current academic institutions that grant BSc, MSc and PhD degrees in Nutritional Sciences, health organizations requiring individuals with advanced degrees and replacing faculty who will be retiring in the next 5-10 years. Additionally, there appears to be an inadequate number of dietetic internship opportunities available to students immediately after completing the BSc degree to support the current number of graduates in Nutritional Sciences. This situation appears to result in a high attrition rate during the period between completing the BSc degree and beginning their dietetic internship program. Interviewees suggested that as a result of the delay in internship opportunities Nutritional Sciences graduates enter other fields or graduate programs by default. This delayed entry into the work force results in wasted training resources and limits the supply of qualified dietitians to fill future positions, particularly in the areas of chronic disease prevention, an especially important problem with the increasing numbers of older persons in Israel.

The first program in Nutritional Sciences was established at The Hebrew University of Jerusalem and it has had a profound influence on all academic programs because it is the only Israeli institution that grants PhD degrees. Hence, it sets the intellectual tone for the other institutions that grant BSc degrees and were evaluated by this committee – Ariel University Center of Samaria and Tel Hai Academic College. It is the consensus of the Evaluation Committee (EC) that the field of Nutritional Sciences is at a critical juncture in Israel. It is hoped that a goal of self-examination and self-determination will provide an opportunity to assess whether a reconfiguration of the general approach for training BSc, MSc and PhD students in the field of Nutritional Sciences should be considered, with the aim of addressing future national needs and maximizing the benefits harvested from the limited training resources available. The area of Nutritional Sciences is critical to the future health and well-being of Israeli citizens. Fortunately, there is a small group of talented and committed individuals currently in the field that are in a position to accomplish this goal. However, the size of this group may limit their ability to achieve their goals. It is not clear to the EC if this group is small due to lack of qualified candidates and/or funded positions. Likewise, it is not clear to the EC if the number of new people currently being trained will be adequate to meet future national demands.

This report notes several areas of strength and of concern for the future of the educational programs in Nutritional Sciences in Israel. Strengths include a highly trained group of individuals with diverse backgrounds that are committed to improving the quality of current programs now and in the future. These individuals have the skills necessary to adapt to the changing demands in the field of Nutritional Sciences and to modify the programs to reflect these needed changes.

Limitations included:

- the scarce resources available to the field of Nutritional Sciences, for both education and research

- the excessive workload of the current faculty
- the inadequate internship opportunities relative to the number of BSc degrees granted annually
- the limited opportunities available for students to pursue doctoral level studies, and from the EC's perspective, particularly in the areas of Nutritional Sciences with a clinical focus, such as Public Health or Medicine.

The areas to be highlighted are:

### **Meeting Demands of Nutritional Sciences in the Future**

The scope of practice and the knowledge base underlying sound professional practice in Nutritional Sciences continues to evolve as the public health challenges in Israel change. A serious concern for the field of Nutritional Sciences is whether the current programs have the resources necessary to adapt to these changes, have adequate faculty to implement necessary changes and have adequate capacity to train sufficient numbers of students to fill national needs. The inadequate numbers of available dietetic internships appears to result in attrition during the period between BSc and internship program, which represents lost resources.

Concerns raised were similar at each of the three institutions evaluated. One approach to address these issues is for the administration/faculty from the three institutions offering BSc in Nutritional Sciences to form a long range planning committee to evaluate current academic programs and make recommendations to the CHE. Such a committee should include representatives from all three institutions and other stakeholders who are impacted by graduates in the field of Nutritional Sciences. It is EC's opinion that one potential solution would be to expand the current 3 year program to 4 years with the dietetic internship included as a formal part of the BSc program. Students would take additional elective courses in fields that would address current public health challenges in Israel (e.g., chronic disease risk, overweight/obesity, sport nutrition). Alternate solutions could be forthcoming from such a committee. Consideration should be given to providing opportunities to integrate training in Nutritional Sciences to medicine and public health.

### **Recommendations to the Institutions:**

Immediate (0-2 years):

1. Strategic planning - Undertake a 5-year strategic planning effort taking into consideration the projected needs of Israel in terms of persons trained in the area of Nutritional Sciences at all levels, BSc, MSc and PhD:
  - a. convene a national committee that involves all stakeholders
  - b. evaluate current capacity and projected future needs
  - c. develop a plan to match the projected needs with current capacity, including a consideration of whether additional Israeli based MSc and PhD programs are needed and whether some students should be encouraged to train outside Israel with the intent of returning
  - d. explore the possibility of adding a fourth year to the Nutrition Sciences BSc program that would include the dietetic internship, additional nutrition/dietetic specific elective courses and community involvement
  - e. develop an ongoing system to evaluate the 5-year plan.

2. Student/faculty ratios - Each institution should review student/faculty ratios and determine whether adequate staffing is available when all the responsibilities of the faculty are taken into consideration; teaching, student advising, research, administrative, particularly, if they expand on the basis of this report.
  - a. assess current student/faculty ratios relative to best practices,
  - b. if changes are warranted, work with the CHE to develop a plan to alter the student/faculty ratios,
3. Review and revise BSc program - Each institution should undertake a comprehensive review of their BSc curriculum to determine whether all the first and second year required basic science courses are essential for the training of clinical dietitians relative to the time available to focus on nutritional science and particularly contemporary topics in areas related to current national health needs (e.g., obesity, sports nutrition, chronic disease risk reduction).
4. Each institution should evaluate the appropriateness of dividing their BSc program into two study tracks – (1) dietetic internship and (2) research starting in year 2 of study;
  - a. undertake a comprehensive review of the BSc curriculum to determine whether two tracks should be created, one for students intending to become clinical dietitians and one for students intending to pursue subsequent graduate level studies,
  - b. if deemed necessary, develop curricula for the two tracks,
  - c. if deemed necessary, evaluate resources necessary to provide appropriate courses and experiential learning, and make recommendations to the CHE;
5. Each institution should develop a system to ensure that all their course syllabi include learning objectives and week specific readings/projects, and are updated annually to reflect the changing science in the field of nutrition. This systems should be standard across all courses and should include:
  - a. adequately detailed learning objectives,
  - b. mandatory reading that should be current and drawn from original sources rather than textbooks which become dated quickly,
  - c. grading schemes that relay on variety methods such as midterm examination and/or assignments/projects to be given throughout the semester and not limited to a single final examination.

Intermediate (2-4 years):

6. Expand research opportunities in the field of clinical nutrition nationwide to bridge the gap between basic and applied nutrition. It would thus be desirable to introduce applied clinical nutrition studies to the research carried out in the institutes. Potential approaches could include:
  - a. recruit clinical faculty to facilitate the introduction of the desired studies into the institutes,

- b. encourage adjunct faculty members, associated with hospital departments, to integrate students and faculty into ongoing clinical studies,
  - c. foster collaboration with scientists interested in applied nutrition, nationally and internationally, to bridge the gap between basic and applied nutrition.
7. Infuse the curriculum with up-to-date approaches for the application of nutrition principles globally: evidence-based dietetics practice, oral health assessment, nutrition care process and International Nutrition and Dietetics Terminology (INDT),
- a. expand the opportunities for faculty to interact with professionals involved in Nutritional Sciences training internationally,
  - b. provide support to adapt and integrate approaches used successfully in other countries into the national training systems.

Long Term (4-6 years):

8. Innovate in the area of teaching methods:
- a. explore distance learning methodologies that have worked successfully in other disciplines,
  - b. invest in technologies that allow the adoption of innovative teaching methods,
  - c. provide faculty with ongoing training and support to incorporate newly available teaching methods into the classrooms.

### **Recommendations for the CHE:**

All recommendation should be implemented immediately (0-2 years):

1. Prohibit development of new MSc and PhD programs or expansion of current programs in the field of Nutritional Sciences until a needs assessment and 5-year strategic plan has been developed. If deemed appropriate, increase the number of institutions which offer MSc and/or PhD degrees in the field of Nutritional Sciences and provide financial resources to the institutions to support the programs in terms of faculty salaries, graduate stipends and PhD dissertation research. If adopted, new programs should undergo regular evaluations every 5-years to ensure the goals are met.
2. Prohibit development of new BSc programs or expansion of current BSc programs in the field of Nutritional Sciences until such a long-range strategic plan is developed and the problem of inadequate dietetic internship opportunities is resolved.
3. Encourage some Israeli students to earn PhDs in the field of Nutritional Sciences outside of Israel with the intent of returning to Israel to fill academic and healthcare positions by providing graduate student stipends. If adopted, this program should undergo regular evaluations every 5-years to ensure the goals are met, particularly in terms of whether students return to Israel and fill key jobs requiring their skills.
4. Encourage more postdoctoral experiences outside of Israel by providing fellowship support to select PhD graduates with degrees in Nutritional Sciences who will then be obligated to return

to Israel to fill tenure-track academic positions. If such an approach is adopted it should undergo regular evaluations every 5-years to ensure the goals are met.

5. Support should be available to new faculty members to design and update courses, and when appropriate initiate research projects.
6. Provide resources and practical support to constitute a committee representing all the institutions currently granting BSc degrees in Nutritional Sciences, to develop a joint long-term strategic plan, with the intent of evaluating and potentially updating current curricula, assessing future needs and recommending optimal approaches to meeting these needs. This committee should include a wide range of stakeholders, including the Ministry of Health, and individuals in fields related to Nutritional Sciences such as but not limited to medicine and public health, and could include educators conducting research outside of Israel. This report should be finalized within 2 years after the committee's first meeting.
7. Assess the role of adjunct faculty in terms of time efficiency when teaching at multiple institutions and underutilization in terms of providing practical field experiences and research experiences for the students.
8. Request each institution retroactively assess student graduation rates, cumulative grade averages and similar outcome measures relative to student admission data to determine whether the criteria used to determine admission to the Nutritional Science academic programs are good predictors of student success. On the basis of these data, if necessary, modify admission criteria.
9. In order to facilitate adoption of the committee's recommendations the committee proposes that each institution submit, biennially (every 2 years), a report to CHE that includes the following:
  - a. Summary of changes to the degree curricula/degree programs, including but not limited to new degree programs, addition/deletion of courses, changes in degree requirements
  - b. Updated course syllabi (dated)
  - c. Changes in departmental faculty
  - d. Summary of ongoing self-evaluation/quality assessment, including changes, if appropriate, in the method of self-evaluation/quality assessment
  - e. Other educational related activities, including but not limited to faculty support services, modifications to classroom/institutional infrastructure.

## **Chapter 4: Summary**

The EC reviewed the programs leading to the BSc, MSc and PhD degrees at three institutions; Ariel University Center of Samaria, The Hebrew University of Jerusalem and Tel Hai Academic College. Only The Hebrew University offers the masters and doctoral degrees.

The EC recognized that all programs prepared their students for the current requirements of the Ministry of Health for the licensing of dietitians. Of note, there is an imbalance between students completing a BSc degree and available internships. The current full time and adjunct faculty have the appropriate backgrounds to teach, however, there appears to be an uneven distribution among available faculty positions, number of students and qualified individuals, resulting in some faculty teaching at two institutions and in some cases high student/faculty ratios. Of note, the current faculty is dedicated, committed, and hardworking. Because some of the adjunct faculty split their time between multiple institutions they may be underutilized in terms of potential contributions to the individual programs.

The students interviewed were industrious, motivated, and hard working. In general, the alumni were happy with their training experiences but expressed some of the frustrations reflected in the EC report.

The individual reports offer recommendations for each program in the areas of teaching outcomes, student learning, human resources, curriculum, and clinical preparation.

This general report provides evaluative comments and recommendations that apply to all institutions as they look to educate high caliber professionals for this century.

The EC applauds the CHE for its involvement and commitment to continuous quality improvement. It believes that with additional resources and administrative and governmental support, all the institutions will build on their respective strengths and work collaboratively to meet the future needs of Israel in the field of Nutritional Sciences.

**Signed by:**

Alice H. Lichtenstein

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Prof. Alice H. Lichtenstein,  
Chair

Judith A. Gilbride

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Prof. Judith Gilbride

S. Mokady

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Prof. Shoshana Mokady

Maret G. Traber

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Prof. Maret G. Traber

## Appendix 1: Copy of Letter of Appointment



December, 2011

שר החינוך  
Minister of Education  
وزير التربية والتعليم

Prof. Alice H. Lichtenstein  
School of Nutrition Science and Policy  
Tufts University  
USA

Dear Professor Lichtenstein,

The State of Israel undertook an ambitious project when the Israeli Council for Higher Education (CHE) established a quality assessment and assurance system for Israeli higher education. Its stated goals are: to enhance and ensure the quality of academic studies; to provide the public with information regarding the quality of study programs in institutions of higher education throughout Israel; and to ensure the continued integration of the Israeli system of higher education in the international academic arena. Involvement of world-renowned academicians in this process is essential.

This most important initiative reaches out to scientists in the international arena in a national effort to meet the critical challenges that confront the Israeli higher educational system today. The formulation of international evaluation committees represents an opportunity to express our common sense of concern and to assess the current and future status of education in the 21<sup>st</sup> century and beyond. It also establishes a structure for an ongoing consultative process among scientists around the globe on common academic dilemmas and prospects.

I therefore deeply appreciate your willingness to join us in this crucial endeavor.

It is with great pleasure that I hereby appoint you to serve as Chair of the Council for Higher Education's Committee for the Evaluation of Nutritional Sciences Studies.

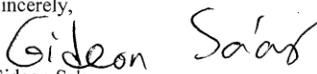
The composition of the Committee will be as follows: Prof. Alice H. Lichtenstein (Chair), Prof. Judith Gilbride, Prof. Shoshana Mokady and Prof. Maret G. Traber.

Ms. Yael Franks will coordinate the Committee's activities.

In your capacity as Chair of the Evaluation Committee, you will be requested to function in accordance with the enclosed appendix.

I wish you much success in your role as Chair of this most important committee.

Sincerely,

  
Gideon Sa'ar  
Minister of Education,  
Chairperson, The Council for Higher Education

*Enclosures:* Appendix to the Appointment Letter of Evaluation Committees

cc: Ms. Michal Neumann, The Quality Assessment Division  
Ms. Yael Franks, Committee Coordinator

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