



February 19th, 2013

Evaluation of Biotechnology Engineering Study Program at Ben Gurion University of the Negev: A Reply

On behalf of our department I would like to thank the members of the Committee for the Evaluation of the Biotechnology & Biotechnology Engineering Study Programs and the Council of Higher Education for their time and efforts during the evaluation process. We enjoyed both, the preparation of our self evaluation report and the visit of the committee to BGU last June.

We found the whole process to be beneficial for our department and with some minor concerns we will do our very best to address and improve those issues that were raised by the committee. We believe that it will further contribute to the future forging of our department in the rapidly developing of biotechnology and engineering sciences.

Since some of issues are out of the departmental scope, I will split my letter into two sections: the first (I) having, a managerial character, concerns infrastructures-facilities-equipment and recourses are discussed and the second (II) having more academic flavor and will be dealt within the department and faculty.

I have tried not to repeat those issues that we have addressed following the executive summary. Committee recommendations are in italics and our response follows.

I) Infrastructures, Facilities, Equipment and Resources

Without delay, allocate a larger appropriate modern and well equipped space to house the teaching laboratories of the DBTE. This space should be large enough to accommodate, in one location, all of the teaching laboratories of the DBTEP. P22 The committee is deeply concerned about the space allocated to the teaching laboratories of the program. The committee visited these laboratories during a class session and concluded that the laboratories are significantly smaller than what is needed in order to safely accommodate the teaching needs of the program. The committee has found the teaching laboratories to be significantly overcrowded to the extent of posing a safety hazard.

The above section contains the following issues which are of crucial importance for the teaching laboratories and hence for our teaching program, especially the needs for

a larger and integrated space and upgrading of the laboratory and departmental equipment. These issues are beyond the budgeted resources and the scope of the department to address alone and the university administration still needs to deal with them. Notably, as indicated in the report, the university is currently planning the construction of a proper home for the department and these needs hopefully can be addressed and corrected in the context of the planning of that building. All of that also should be discussed along with the safety issues that were raised by the committee.

The committee has found the instrumentation for instructing units operations in manufacturing and purification of biological mass to be limited and outdated. The committee holds the opinion that this lack of adequate instructional platform has to be addressed.

Establish a properly equipped centralized Advanced Equipment Facility within the DBTE to allow graduate students and other researchers to progress fast and effectively in their research.

The committee recommendation for centralized Advanced Equipment Facility within the DBTE is being considered again at the managerial level brings together and modifies the departmental infrastructure (this kind of equipment facility was existed in the past). It will be rigorously and thoroughly discussed and efforts will be invested to integrate such a facility in conjunction with the progress and planning of our new building.

P 22 Establish a reasonable, consistent and guaranteed level of financial support for graduate students and cancel the requirement to pay back (to the university) money that has been granted to graduate students in case they decide to terminate their studies prior to completion.

This issue has been a sore point our fiscal management and department-graduate student interactions. In the last couple of years we have invested a lot of effort to optimize our budget and resource allocation within our department, precisely for the reasons mentioned above and also so that every faculty will able to properly design and manage his/her long term fiscal balance. However, this is just one side of the coin and the other side is to find the ways for increasing our budgeting – working a long a different formulation for budget allocation and creating new programs. Along these lines, in the last few years we are trying to establish departmental program for outstanding Ph.D. students. To date, we are facing difficulties in establishing this program and allocating extra budget to our department for this purpose. Establishing this program will encourage the “excellence” and allow us a better stable financial support for graduate students as mentions in the section above.

Over the past decade the university has constantly increased research student support through the Kreitman School of Advanced Studies. We expect these efforts to continue and to be reflected at the department budgeting level as well. The issue of

cancelling payback requirements demands deeper discussion within the university administration.

Establish an effective and dedicated Industry Advisory Board to the DBTE.

We will try to establish this kind of Advisory Board. However, since this is an academic institution this has to be done with caution so that the academic nature and the academic freedom of our department are maintained, particularly in the light of our (BGU) code of ethics that addresses these issues.

II) Academic Aspects

Establish study tracks for the M.Sc. program; increase the number of elective courses to better meet needs of both undergraduate and graduate students; allow graduate students to take courses offered by other departments based on a “per-need” consideration, regardless of how many courses they have taken in the DBTE.

The feasibility of such tracks will be checked with reference to the number of our M.Sc. students.

Review and adjust the undergraduate study tracks; instruct a compulsory course in technical writing (in English and Hebrew) during the first year of studies.

We indeed already began a review process here. Regarding the technical writing, we will discuss this issue at the faculty level, for credit points and resources.

Limit the placing of graduate students on a “fast track” and offer it only to outstanding and uniquely talented students.

We will indeed begin a review process here.

Please also note our reply regarding our departmental program for outstanding Ph.D. students

Better manage the processing of promotion dossiers to prevent unnecessary delays; assign to each junior tenure-track faculty member a senior faculty member who will serve as his/her mentor.

Such a procedure has already been undertaken.

Introduce and implement a Learning Outcome Assessment program for assessing the learning outcomes of all of the courses and learning experiences that are offered by the study programs.

We already established a forum comprising representative of our faculty in graduate and undergraduate students as the first step.

Mission, Goals and Aims

Once the strategic plan of the FES has been established, the DBTE will review its mission statement and strategic plan in order to identify and implement necessary adjustments.

The committee recommends that specific long- and short-term objectives, derived from the strategic plan of the DBTE and addressing all the academic and infrastructural aspects of the program will be established.

We will begin such a review process.

The Undergraduate Study Programs

Add, as an integral part of the research project and its grading, a compulsory requirement of 15-20 min oral presentation delivered by the student at the end of the project, after the written report has been submitted.

This has already been done.

Encourage students to select some of their elective courses from relevant courses offered by other programs at BGU.

Strengthen the Environment and Energy track and remove courses that do not belong there (such as - New marine originating drugs).

Instruct, during the first year of studies, a compulsory course in technical writing in Hebrew and in English.

Adjust the number of credit points that are required in all the tracks (to 24-24.5) and eliminate the current between-tracks differences in this regard.

Develop and introduce more opportunities for students to develop their critical thinking skills.

Develop and add more elective courses.

Include a course in soft material engineering in the Medicine and Nano-biotechnology track.

We will begin implementing all of these recommendations.

Include a course in Human Physiology and Anatomy in the Medicine track.

Physiology is already a compulsory course in the program.

The Graduate studies program – M.Sc. and Ph.D.

P 20 Establish and introduce an objective set of unbiased criteria for accepting qualified candidates that graduated a 4-year undergraduate program to the M.Sc. study pro-gram. Be very sensitive and protect the interests of all candidates, regardless of where they had their undergraduate studies.

We have already implemented a system by which candidates have to meet, present and be examined in front of a broad unbiased committee.

Allow graduate students to take courses offered by other departments based on a “per-need” consideration, regardless of how many courses they have taken in the DBTE.

This will be implemented.

Limit the placing of graduate students on a “fast track” and offer it only to outstanding and exceptionally talented students.

This has already been implemented.

Clearly define study tracks for the graduate studies towards M.Sc.

Please see our comment above.

Include in each track 2 additional compulsory courses addressing advanced topics in the track-specific field.

Develop more elective courses to properly address needs of students of the different study tracks.

Both recommendations will be implemented.

In general, the need for more elective courses is raised in this report and also various discussions at our department. Although we are all fully busy in teaching, we will try to add some more elective courses. These will also be given and added by our recent recruit and future recruits.

Human Resources

Introduce a structured and effective process aimed at maintaining contacts with alumni and establish data depicting positions and occupation of alumni.

It is not clear what can be accomplished at the departmental level, but discussions will be held with the dean. Notably, the university has just established an Alumni Association with its own webpage.

III. Summary

As written above we were very happy with the evaluation process and the visit of the committee and we are grateful to the committee and its members. I would like to note that to the best of my understanding heavy weight in the current report deals with infrastructures, space, equipment organizational issues, resources allocations along with some changes to our new building. All of these require some modifications that spans beyond the scope of the department. Hence, monitoring their implementation plays a pivotal role for the deployment of this report and for the progress of our department.

I shall be happy to provide any further information should it be required.

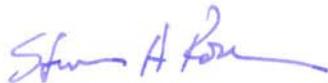
Sincerely,



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