

February 28, 2013

Ms. Yael Elbocher, Coordinator  
The Quality Assessment and Assurance Division  
Council for Higher Education

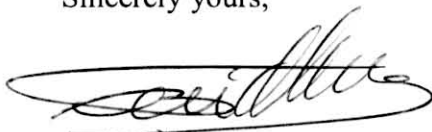
**Hadassah Academic College answer regarding the Council of Higher Education's  
comment of evaluation report of the Biotechnology Study Program**

Dear Yael,

Thank you for your letter, containing the report of the self-evaluation committee and the decisions of the Council for Higher Education. We wish to express our appreciation for the excellent work of the Malag and the evaluation committee headed by Professor Rosenberg. Your conclusions and advice will definitely help us to improve further our teaching system and as a result release graduates with a better basis for either higher education or employment in the industry, the two goals of our program.

Below you will find our reference to each point you raise in the different section of your report.

Sincerely yours,



Prof. Bertold Fridlender

### 3.2 Mission, Goals and Aims

**Immediate** (full implementation within one year)

- **Develop a concise and focused mission statement, reflecting the collective vision of the BTP's (Biotechnology Program) faculty members.**

The mission of the BTP is that the graduates of our program will have a sound basis to practice their knowledge in the industry or continue their studies toward higher academic degrees. This aim requires a strong and wide knowledge in biology and chemistry as reflected in the curriculum of the BTB.

- **Develop a detailed strategic plan addressing all of the academic-curricular- and infrastructural-related aspects of the program.**

As reflected in the evaluation report the program has a high quality team of teachers and Lab instructors. We emphasize the practical part of the program by offering relatively a large number of CPs (Credit Points) to laboratory training. The curriculum is now being reevaluated and necessary changes will be implemented starting in the next academic year.

- **Recruit and install an effective and committed Industry Advisory Board to the BTP consisting of leaders from the biotechnology and related industries.**

We are at a stage of recruiting new members from the industry and academia to the Advisory Board. We have recruited already two new distinguished members from the industry Prof. Amos Panet and Prof. Marian Gurezki . Both have also a strong academic background.

### **3.3 The Study Program**

#### **Recommendations:**

**Immediate** (full implementation within one year)

*We refer to all the points that were raised (see below) in one answer.*

- **Recommendations pertaining to the Research Project:**
  - Better assist and guide students in identifying and selecting a host laboratory for their research project.
  - Enhance the extent to which the BTP monitors the quality of instruction provided to its students at the sites where they conduct their research.
  - The coordinator of the research project should visit (at least once every year) all of the sites where the program's students conduct their research.
  - Once a new potential host laboratory for conducting Research Project is identified, the coordinator of the course should visit the site, meet with the PI (Principle Investigator) who will instruct the students and make sure that the scope and objectives of the Research Projects are clear.
  - The on-site PI/supervisor will be requested to attend the final seminar delivered by the student and his/her involvement in the grading process will be increased.

Last year the coordinator of this project was change and already at this academic year a new procedure that fits the recommendations of the review committee was introduced:

The coordinator of the Research Project meets with 2<sup>nd</sup> year students at the BTP and explains in detail the objectives of the project. During the summer vacation most students will find a research laboratory on their own. The host research laboratory has to be approved by the coordinator of the course. Students who are unable to find a host lab during the summer are asked to approach the course coordinator, who contacts labs personally in order to find a good match between students and specific laboratories. This procedure

ensures that by the end of the first semester of the 3<sup>rd</sup> year all students are participating in a research project that was authorized by the BTP.

Students present a letter to the labs' PI that was written by the course coordinator and elaborates on the goals of the research project, its scope and the general requirements relating to the students work.

Upon joining a research lab, students must ask for a formal approval of the project by the BPT course coordinator. In it, students must state the title of the project, its aim, the methods that will be used during the research and the most relevant bibliography relating to the project. Each request is reviewed carefully and frequently by the coordinator and involves additional discussions with the students and if needed with the PIs. This procedure assures a clear working frame for the duration of the project. The mentor of the hosting lab is requested to attend the oral presentation of the project in the BTP.

#### **Recommendations pertaining to curricular modifications:**

- **Develop and implement a better structured and clearly defined procedural path for reviewing and updating the curriculum.**
- **Establish a process for periodically reviewing the entire curriculum.**

We have established an Internal Curriculum Review Committee headed by the head of the program, Prof. Alik Honigman. The internal curriculum review committee and the head of the program will evaluate periodically the curriculum of each course and the outcome of the curriculum modifications. the initial changes will be implemented already in the next academic year. (See below).

- **Clearly define the specific roles, responsibilities and involvement of the program's Steering Committee, Educational Committee and the head of the program in the curriculum updating processes.**

**Steering Committee:** Overview the theoretical and practical aspects of biotechnology that affect the teaching program of BTP. Review of teaching

curriculum and infrastructure and consulting the Head of the program and the Internal Curriculum committee.

**The education committee** deals with the daily teaching problems, individual students learning problems and problems related to specific courses. The role of this committee is to examine carefully the relationship of the teachers of the BTP with students. In addition we have established a Curriculum Review Committee to review the teaching program and suggest modifications to the curriculum.

**The head of the program** is responsible for the academic and administrative activities of the program. He is responsible for the execution of the decisions of the college academic council and management. Being involved in the work of the education and curriculum committees he is supervising the quality of teaching of each teacher in the program, developing new courses and modifying existing courses. In addition he is conducting ongoing meetings with students and the devisers of each year, interviewing new candidates to the program and representing the needs of the BTP to the management of the college. The head of the program is responsible for nomination of teachers, visiting classes for evaluation of the teachers and helping them to improve. He recommends promotion of teachers to the college management.

We have established an internal **curriculum review committee** headed by the head of the program, Prof. Alik Honigman. The committee started to interview all the teachers of the program in groups of related subjects. The aim of the committee is to evaluate each of the courses, to coordinate the teaching between the different courses and establish elective courses.

The conclusion of the committee was discussed with the teachers of the BTP and was presented for approval to the College Academic Committee and the president for approval. We will start to implement the modifications already in the next academic year and hope to conclude the process within two years. The Internal curriculum review committee and the head of the program will monitor and assess periodically the outcome of the curriculum modification.

**Intermediate** (full implementation within 2-3 years)

- **Develop and offer more elective courses and increase the CP allocated to elective courses to 8-10 CP.**

Next academic year 2 new elective courses "From gene to genetic therapy" and "From gene to the shelf" will be implemented (3 CP each). We are planning to add another elective course, a year later.

- **Develop a compulsory course in Technical Writing (in both English and Hebrew) and instruct it during the first year of study.**

During the first year in the BTP the students are taking classes in scientific English writing and reading of biotechnology texts. However, in line with the recommendations of the evaluation committee, starting next academic year the teacher of the course "Research methods" will dedicate 1CP for Technical Writing.

Within the next 1-2 years we will establish formal instructions for scientific/academic writing and introduce them along with the writing stages of the research project. This course will be taught during the third year.

We will instruct the teachers to require a standard lab report using standard technical style of writing, including proper writing of references. This will apply to all courses.

### 3.4 Teaching & Learning Outcomes

**Immediate** (full implementation within one year)

- **Introduce procedures for assessing, on a regular basis, the quality of teaching of all instructors and mentors, including the off-site instructor of the Research Project**

Starting this year the students and teachers are filling feedback forms with regards to all the instructors and the offsite mentors.

**Intermediate** (full implementation within 2-4 years)

- **Develop, and implement the concept of Learning Outcome Assessment as the main tool for assessing the learning outcomes of all the courses and learning experiences that are included in the curriculum.**

Starting January 2013 the college at large and the BTP in particular started to incorporate the Learning Outcome Assessment. This topic will continually be applied to the upgrade of the curriculum and assessment of the learning outcome of the courses.

In addition starting next academic year a pre-seminar will be incorporated in all courses of 4 CP or more and the grades on the pre-seminars will be 15% of the final grade of the course.

### 3.5 Human Resources

#### **3.5.1 Immediate** (full implementation within one year)

- **Pending the introduction of tangible opportunities for conducting research as part of the criteria for promotion, and until the concept of individual-specific job description has been implemented, base the promotion of faculty members, at all ranks, only on their accomplishments in teaching, community service and outreach activities.**

Promotion of teachers up the degree of Professor is and will be based mostly on their teaching performance in accordance with the individual job description that will include: introduction of up to date technologies in lab courses, updating of lectures, introduction of self learning methods in their courses etc... In addition, the students teaching feedback questioners and the report of the head of the program, following visits to classes, will be considered. However, since we are obliged to the guideline of the Council for Higher Education (CHE).

As for promotion to degrees of professors we will follow the instructions of the CHE which require that publications in peer reviewed journals will be an essential part of the promotion procedure to these degrees.

**Intermediate (full implementation within 2-4 years)**

- **Instruct courses and laboratories only by faculty members holding a graduate degree.**

This is a prerequisite in the BTP.

- **Develop and introduce faculty-member-specific job descriptions where the proportion of effort to be allocated to each of the academic and administrative activities of the faculty member are clearly defined**

A detailed job description will be presented to each teacher toward next academic year.

- **Once the concept of individual-specific job description has been established and defined, develop and implement a clear set of guidelines that identify and specify, for each promotion step in each of the academic ranks, the requirements for a successful promotion.**

The BTP follows the requirements of the guidelines of the College for promotion to each degree and the candidates receive a copy of the guideline.

- **After establishing and introducing the revisions, as described above, fully implement a promotion process that is based on assessing success in meeting the criteria and objectives that are stated in the individual-specific job description.**
- **Include in the promotion process of faculty members (at all ranks) with a significant research component (more than 20%), and faculty members that are considered for promotion to the professorial rank a dossier evaluation by 3 outside reviewers, to be solicited from relevant academic programs abroad.**

We follow the guidelines of the Council for Higher Education (CHE).



### 3.5.2 Students

#### Recommendation:

**Intermediate** (full implementation within two years)

- **Establish and update on a regular basis an alumni data base and maintain contact with the alumni on a regular basis**

The college nominated a committee that started to work on the establishment of the college alumni organization. Currently they are preparing a data base that will include contact information, employment description, and personal details. The college is planning to be helped by the alumni to find occupation solution for the graduates. Once the data base is established the college will keep the alumni informed about the college and events.

The BTP will use this data base to find appropriate sites for the research project. In order to keep in touch with the alumni of the BTP and demonstrate to the students the fruits of studying in the BTP we organized a mini conference at the college in which alumni will present their research and work in academy and industry. This event will be repeated once a year starting at 2013.

The college has established this year a Career Counseling Center which helps graduates to find an employment.

### 3.6 Research

As correctly pointed out by the evaluation committee there are very little research facilities in the college. To help teachers to carry out research, the college established a new program that encourages the teachers to carry out research. Starting the next academic year (2013-2014) BTP teachers will be able to substitute teaching hours with research hours following approval of the research program by the College Research Committee.

In addition, we will try together with government bodies allocate designated research funds. In November 2011 the department was awarded a grant by the EU for the research of natural products in plants of the Mediterranean Sea Basin. Faculty and students from the BTP have been actively involved at this project Called BioXplore.