Committee Recommendation	Steps toward implementation (including time table)
Internal Quality Assurance	
The Committee recommends allocating a specific institutional person to assist the SER process of all Technion Faculties (Technion-CHE-SER designate).	The SER process and the entire quality control process is managed by the relevant faculty and supported by the office of the Deputy Senior Vice President (DSVP). This refers to committees mandated by the CHE and ones mandated by the Technion's management. All academic aspects are institutionally supported by the DSVP and the head of the DSVP office provides administrative assistance to the faculty.
The Department/Study Program	
The Committee recommends the inclusion of 1-2 courses in English in the undergraduate program.	Following the CHE and Technion administration guidelines and in accordance of the committee's recommendation, the following actions are now in place: 1. In the research project course (4 Credit Points) – The final Report is written and handed in English. 2. All dual-listed courses (B.Sc./M.Sc.) are taught in English. 3. Since last year, the course "Developmental Biology" is taught in English. 4. We have added a new undergraduate course "Scientific Thinking" to the curriculum, and it will be taught in English.
Teaching and Learning Outcomes	
The Committee recommends lowering the impact the student surveys provide in the process of faculty evaluation.	The quality of teaching is one parameter by which our faculty are evaluated. In this regard, we consider both the students' and colleagues' evaluations. On the institutional level, the content of the student's survey and the methods used for receiving high quality feedback from the students are constantly discussed and improved. This effort is led by the Center for Promotion of Learning and Teaching, and it aims at providing effective means for evaluating and improving

Committee Recommendation	Steps toward implementation (including time table)
	teaching on campus. Being one of the main components of our faculty role, teaching and mentorship are carefully looked at in the process of evaluation.
Students	
Many undergraduate students dropout or do not graduate (Table 6). The Committee recommends that the Faculty take measures to address the issue by tracking the numbers of 'dropouts', and develop strategies to identify potential problems early on, and work with at-risk students to find appropriate solutions.	We have a streamlined procedure to identify and work with students that show difficulties with their academic progress. The head of the undergraduate committee meets with these students each semester, discusses with them the reasons for their difficulties, and builds with them their (compulsory) study plan. Most of these students are referred to the "Center for Counseling & Support", a Technion-wide center under the responsibility of the Dean for Students, whose mission is to assist students with academic and/or emotional difficulties. The center's staff includes professionals from the fields of educational counseling, learning disabilities, social workers, and psychologists. Additional support is provided by the center for psychological aid. The center employs about 25 clinical psychologists who provide psychological treatment (psychotherapy) and diagnosis (psychodiagnostics). The center offers a variety of treatments for students who are experiencing emotional distress. These services are aimed at helping students cope with psychological challenges and interpersonal, familial, or academic crises or crises of any other nature. Psychological therapy is subsidized to enable all students to receive the assistance that they need during their studies at the Technion.
The Committee suggests that the Technion reconsider admission of students to specific programs. Since the initial year of study includes required courses taken by virtually every Technion first year student, we **recommend** that a single portal for undergraduates to the program will easily facilitate decisions about major and also	Our faculty has invested lots of time and thought to advance dual programs with different scientific and engineering faculties at the Technion. This year we have launched a new dual Biology/Chemistry B.Sc. program. We would be happy to consider favorably a mechanism for admission of students for a joint first year, shared between biology, chemistry, and other

Committee Recommendation	Steps toward implementation (including time table)
potentially dual majors or minor study programs. At present, the Committee was told that such dual majors are very difficult to undertake; we recognize that the Engineering students study for one year additional to the three years of Biology undergraduate students, and that CHE oversees this requirement. The Committee learned that this difference is a barrier to joint programs of study; we ask Technion and CHE to reconsider this historical policy in order to facilitate multidisciplinary approaches to study and research. It would be advantageous to the THHI program to have this flexibility.	relevant faculties. Notably, the biology curriculum shares little in common with the teaching programs of most engineering faculties as well as with the other faculties in the exact sciences. Also, as mentioned by the committee, due to CHE regulations, it is rather difficult to form dual or major/minor degrees that include engineering. We also urge the CHE to reconsider this barrier.
Academic Faculty and Human Resources	
Recommendation of the Committee is that a new job category be created, Staff Scientists, which would be academic faculty on a research-support track (e.g., Research Assistant Professor etc.). These Staff Scientists should be paid directly by the Technion, and not by the PI's research grants.	In the new track recently launched at the Technion, Research Fellows receive the support directly from the Technion (as opposed to research staff who are supported by the PI's funds). The research fellows have their own labs and research budgets. They can supervise graduate students, publish papers, and submit research proposals for grants. Research fellows are hired on a non-tenure track and normally as part time employees while their complimenting part time employment is in industry. By that, the Technion bridges industry and academia and broadens its research and education scope. The number of research fellows at the Technion is constantly growing.
Infrastructure	
Recommendations include reducing the user fees for the core facilities, complete the renovations for the teaching laboratories, renovate the older existing research lab spaces when resources and swing lab space permit it, generate efficiencies between in-lab, intra-lab-shared, and core facility provided equipment and services, and continue to	The Technion establishes and strengthens infrastructures for faculty members in the field of life sciences. • Teaching - new teaching laboratories are being built, existing ones are being renovated and old equipment is being replaced. • Research - a biology building that includes research

Committee Recommendation	Steps toward implementation (including time table)
invest in the latest EM imaging resources (e.g. cryo-EM) to attract future structural biologists to this and other Bio- and Medical-focused faculties, including in Engineering, which field has been identified as an area of future growth by the Faculty.	laboratories for faculty members is being renovated at a cost of millions of NIS. • Research – At the Emerson building (Engineering and Life Sciences Building), many of the labs belong to the Biology faculty. The advanced and modern laboratories cover large areas. Infrastructure centers provide services in the same building. • Newly recruited faculty members in the faculty of Biology: in the past 4 years the faculty has recruited 5 new faculty members (22 in the broader field of life sciences) and the Technion has invested 6.5M $ in the startup package and lab construction for these newly recruited faculty (28.5M $ in the broader field). • Technical infrastructures - The Technion infrastructure centers at the area of life sciences, are advanced and are highly maintained. These centers include the 15 infrastructure services of THHI https://www.thhcf.co.il/, the pre-clinical authority, and a new MRI center for imaging. The re-organization of those centers under the authority of the THHI has also looked at the issue of user fees for the core facilities. In general, Technion invests in the directions recommended by the committee under its budget limitations.
Conclusions and Recommendations	
Essential	
The Technion should pursue the creation of the Technion Human Health Initiative (THHI) with a leading role for the Faculty of Biology.	The Technion's Human Health Institute (THHI) consists of several faculties in the areas of engineering and life sciences. The Faculty of Biology is a member of the THHI. The faculty representative in THHI participates in the various committees. The faculty is active and has collaborations with other faculties in THHI.

The Technion Leadership should enable the Faculty to widen the pool of applicants and admit students who have had 4 (not only 5) math units in high school and facilitate the ability of those students to close the gap early in their Technion studies	The issue of the level of math required for admission has been discussed in the Senate several times and decisions regarding the admission of students to the Technion is under the Senate's authority. A Senate resolution was approved on May 7, 2023, accepting candidates with 4 math units (instead of 5 math units) to the Faculty of Biology. At the Technion, mathematics courses are given that enable to strengthen the mathematical background for those who were accepted with 4 units of mathematics.
The Technion Leadership should consider enabling student-entrants to Technion to decide on their major department after taking the core courses required for all first year BSc students.	The study programs at the Technion (which are all approved by the CHE) and include mandatory courses that are unique to each faculty with a rather minor level of overlap. Under this condition, it is rather difficult if not impossible to study the mandatory courses from one pool of Technion courses. Nevertheless, there are attempts to cluster several programs to a unified freshman year. Hopefully, we will be able to further explore and even test this opportunity during the next two academic years.
The Technion Leadership should ensure the ability of students, postdocs, and all trainees affiliated with the Faculty of Biology to work in any and all relevant labs on campus. Research mentorship from a few Faculties should be encouraged. In addition, permitting students affiliated with the Faculty of Biology to perform research in Biotechnology laboratories should be encouraged.	The Technion enables every researcher to use all Technion infrastructure services and core facilities. A PI and his group can use other infrastructures in other faculties as well and, based on mutual interest, collaborate with other PIs across campus. The Technion leadership encourages such collaboration in several ways. There is a possibility for a graduate student from Biology faculty to be guided by a supervisor from another faculty. Each faculty defines who can guide. For example, the graduate student can be guided by a Faculty from engineering on a topic that involves Engineering and life sciences.
The Faculty should work to reduce the attrition of undergraduate students before graduating; determine the cause(s), and where possible, intervene to promote successful completion of the BSc degree.	We do not think that the word "attrition" well describes our undergraduate programs. As detailed above, students that show difficulties with their academic progress are identified, and the head of the undergraduate committee meets with them each semester. Students are also in contact with the "Center for Counseling & Support", under

	the responsibility of the Dean for Students, who assists students with academic and/or emotional difficulties. We are planning to adopt a computerized system to better track and document the reasons for struggling and dropout. The system is expected to be in place from the next academic year (2023-2024).
Technion Leadership should take measures to financially support graduate students engaged with research-based MSc and PhD programs, beyond the arbitrary time length provided to complete MSc and PhD degrees, e.g., 2-years and 4-years, respectively. The realistic length of time required to complete will be determined by a Faculty Advisory committee, based on prior statistical reports.	The Technion financially supports graduate students across all campus under the limitation of its budget. Within its budget, the faculty is responsible for allocating scholarships for its students based on its policy. In the last couple of years, the faculty received additional allocations when they were needed. The Technion allows for extensions of the study period for internal students beyond the two years for Master's degree and four years for Ph.D students. Usually, the extension is up to a year and in some cases, even more. However, the scholarship is limited to the basic study period of two and four years respectively. The scholars can also receive scholarships during the extension, being paid by the supervisor's research funds. Based on their specific policy, there are departments also support this funding of the scholarships in the extension period, although it is not recommended to do so (as it limits the ability support more students). Finally, it is mentioned that the nominal period for a PhD in the faculty of biology is already longer than that of the rest of the campus. The option of increasing the scholarship period for experimental researchers, including researchers in the life sciences, can be examined but its financial implications can go beyond what can be achieved under the current budget limitations.

The Technion should expand administrative and IT support to the Faculty. Administrative positions of staff in the office of the Faculty of Biology should be fully funded by the Technion.	As part of the annual faculty budget, the Technion covers the salaries of the faculty's employees such as lab engineers and IT staff. The decision of increasing the number of lab engineers or other stuff members is made by the management for each department on an annual basis and while considering needs of the entire campus and availability of resources. For example, the Technion has recently increased the number of lab engineers. In addition, laboratories for new faculty members are budgeted to the extent of 250K NIS for technical manpower.
The Technion support should cover 100% of the salaries of technical staff essential for the Core facilities (Staff Scientists).	Please see the previous answer.
Important	
The Faculty should provide all students with information about the wide range of careers that they can pursue with their Technion degrees.	The information on career opportunities is on our Faculty website. In addition: -In the past year we have established a forum of meetings between faculty alumni in leading positions in academia and industry to share with student's information about possible jobs and opportunities. -Every year the Technion organizes a job fair for the students. In the future, our faculty would like to jointly organize a job fair geared towards Life Sciences under the umbrella of the THHI.
The Faculty should establish liaisons with local biotech and big pharma companies for internships and student research project opportunities, for faculty collaborations, and targeted financial support of the Faculty of Biology	- Our faculty is fully aware of the changes and advances in biotech in Israel and have already established liaisons with several companies. - A couple of years ago we established a joint course with pharmaceutical companies in Israel, given by faculty members and leaders from the industry. - Our faculty co-initiated together with the faculty of data and decision sciences an MBA track in life science. Our faculty has taken upon itself to teach a couple of dedicated courses in this program. We encourage the management to continue to supporting this program and increase its visibility. - We plan to encourage researchers in the industry to accept part-time positions as faculty members at the

	Technion, as part of the management initiative to bridge between the Technion and the local industry. The faculty of Biology would like to jointly organize a job fair geared towards Life Sciences under the umbrella of the THHI.
Teaching Assistants should be provided pedagogical training/workshops by the Faculty or institution, like all other teaching faculty.	Teaching assistants are all required to participate in training days and workshops before starting their teaching assistance position.
Adjust the “clock” on expending start-up funds to begin when research can commence, not the moment of hiring. This includes the support of students who will join the PI.	Young PIs have several years to use their start-up funds. Extensions of that period is handled by the DSVP and we are not aware of any difficulties related to the “clock” mentioned in the report. In addition, all young faculty get full support for their students’ fellowships during the first two years and up to five years until they have their own support from grants. These funds are meant to give them a head start for getting their lab started.
The Technion should increase the institutional contribution to the salaries of the Lab Managers.	The point made in the report refers to an internal issue that under the jurisdiction of the Technion’s management. While budget is limited by nature, the institutional contribution to salaries of Lab Managers may come on the account of other channels by which the Technion supports research. Nevertheless, the number of lab engineers in the various faculties has recently increased, as part of the management's approval of the annual budget with the faculties.
The Technion should allocate funds for fellowships to foreign postdocs.	The Technion has several types of postdoc scholarships such as the Lady Davis Scholarship, which enable to fund foreign postdocs.
Recruit a staff member dedicated to the Faculty of Biology intellectual property in the institutional Tech Transfer office.	There is staff member of the Technion Technology Transfer office (T3) who is dedicated to life science.
The Technion should complete the planned renovations of the old research labs, improve the physical state of the old buildings and take measures to increase the lab-space allocated to the Faculty.	Renovation of the Faculty teaching labs is planned to start next year. The funding has been secured and the details have been ironed out.

The Technion should support the purchases of essential large (potentially shareable) equipment needed for newly recruited faculty members, as well as established faculty members.	New faculty members are fully budgeted for the advanced research equipment they need. On average, laboratory equipment is budgeted at more than a million dollars. In addition, the construction of the laboratory is in the millions of NIS. The new recruited faculty members express satisfaction with the budget for their research equipment.
The degree programs in Biology should be effectively publicized/marketed to high school students throughout Israel, college students in Israel, and to potential students abroad to attract more applicants. This will be much simpler and more effective with a unified Life Sciences program (as noted above).	A couple of years ago our faculty hired a full-time marketing person, currently paid by faculty internal funds from grant overheads. In addition, we have recently assigned a dedicated PI to be in charge of marketing the faculty, its research accomplishments, and its study programs. During the last year, we have organized many PI lectures for the general public (in pubs in different cities across Israel, in high schools, etc.). Moreover, several times a year we organize visits of high school students to the faculty.
It is important to revise the website of the Faculty of Biology to state explicitly that graduate education is conducted in English. This will attract an international pool of applicants.	We completely agree and have revised our website accordingly. See: https://biology.technion.ac.il/en/why-biology-graduate-studies/graduate-study-programs/ "Our graduate programs are conducted in English, and we welcome international students"
Desirable	
The Technion Leadership should advocate and participate in a nation-wide consortium for shared electronic subscriptions to journals and databases.	All universities including the Technion participate in Israel MALMAD Consortium. MALMAD enables the purchase of journals and databases, at a lower cost compared to the original cost. These journals and databases are for the use of researchers and are free of charge. Member fees in the consortium is being paid by each University. In addition, recently, some of the journals include Open Access option at no cost or at a significant discount for the researchers. This trend has been expanding in recent years.

The Faculty of Biology should continue the diversification of students and faculty members.	As we wrote in our original report we are fully committed to increase the diversification of students and faculty members
The Faculty of Biology should develop a comprehensive plan for faculty mentoring and make this transparent.	Our Faculty has a mentoring program, each young PI is assigned a mentor when she/he arrives.
The curriculum should be reevaluated on a regular basis, to avoid overlapping topics and to develop cutting edge courses as new fields open and existing ones evolve. Course credit assigned should reflect the effort required for lab classes.	Our curriculum is evaluated on a regular basis. We have recently approved three new research-oriented teaching tracks with several new courses covering the most up-to-date topics in biology, including a hands-on course applying state-of-the-art technologies in life sciences. In addition, we are constantly updating our - ongoing courses with new topics and exposing our students to new technologies and novel discoveries. From time to time we evaluate the course assignments and change the course credits to reflect the effort required (for example we have recently approved the increase of 0.5 credit points in the structure bioinformatics course from 2 to 2.5 credit points).