

Biotechnology

Graduate and Undergraduate Review

Year 2 (2021) - FAR Implementation Report

(reviewed 2018/19)

Recommendation #1

If space permits, the formation of an undergraduate "Biotechnology Club" with a room allocation could further enhance communication among students in this program.

ARC Disposition of the Recommendation

ARC considers the recommendation to be accepted and in the process of implementation. The Committee expects that the Centre is best-positioned to determine strategies for an effective Biotechnology Student Club and a suitable meeting space.

Implementation Plan (1st Priority)

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|---------------------------------|---|
| Responsible for approving: | Centre |
| Responsible for resources: | Centre |
| Responsible for implementation: | Centre |
| Timeline: | Dean of Mathematics and Science to report by the end of academic year 2019/20 |

| Actions | Responsibility | Year One* | Year Two | Year Three |
|---|----------------|-----------|----------|------------|
| Action #1 Discuss this idea with present club members | Director | C | | |
| Action #2 Form new Brock Chem Society Club | Director | C | | |
| Action #3 Provide ongoing encouragement to students to join clubs. | Director | O | | |

Comments 2020:

There is already a club named Molecular Research Technologies that is open to Biotechnology undergraduates. Indeed, the current president and treasurer of the club are both Biotechnology students. We have had discussions with the current members of the club about how best to encourage more first-year students to get involved. Providing dedicated space to the club is difficult but registered undergraduate clubs can book rooms for the duration of the term when they are not in use for teaching. To augment these efforts the

Brock Chem Society club was formed this past year. Biotechnology students are encouraged to participate in this newly formed club.

Comments 2021:

This past year we continued to discuss with the current members of the Molecular Research Technologies and Brock Chem Society club ways to encourage more first-year students to get involved in Biotechnology oriented clubs. This year due to COVID the meetings for the clubs occurred online.

Recommendation #2

A plan for replacement of senior Biology and Chemistry faculty who may consider retirement in the next years should be considered.

ARC Disposition of the Recommendation

ARC considers the recommendation to plan for faculty renewal to be accepted and in the process of implementation. The Committee recognizes that hiring decisions lie outside of its purview and expects that the Centre will proceed through normal channels of advocacy for faculty resources.

Implementation Plan (1st Priority)

Responsible for approving: Centre
 Responsible for resources: Centre
 Responsible for implementation: Centre
 Timeline: Dean of Mathematics and Science to report by the end of academic year 2019/20

| Actions | Responsibility | Year One* | Year Two | Year Three |
|---|----------------|-----------|----------|------------|
| Action #1 Strike Committees in both Biology and Chemistry to plan for faculty renewal. | Chairs | C | | |
| Action #2 Biology and Chemistry to meet to discuss plans for faculty renewal. | Chairs | T | T | |

Comments 2020:

This recommendation is being implemented. Because the faculty in the Centre are appointed to either Biology or Chemistry the plans for faculty replacement must be developed within the respective departments. Both departments have struck committees to plan hiring

strategies and representatives of the Centre sit on both committees. However, two factors beyond our control make this planning difficult. First, the procedures for the allocation of Canada Research Chairs mean the Faculty of Math and Science can only recommend possible areas of allocation. For recent CRC appointments our recommendations, and those of a review committee, in which one Biology and one Chemistry faculty member participated, have not been followed by the upper administration. Second, the current budget situation means that a limited number of faculty positions can be filled at the moment and it is unclear how long this situation will continue. Currently, in the department of Chemistry efforts are underway to hire a faculty member specializing in organosilicon chemistry.

Comments 2021:

This recommendation is being implemented. The year the department of Chemistry hired a faculty members specializing in organosilicon chemistry. Meanwhile, in the department of Biology two faculty members where hired this year.

Recommendation #3

We suggest prioritizing acquisition of modern instrumentation to give an edge to the teaching labs: fermentation and modern automation.

ARC Disposition of the Recommendation

ARC considers the recommendation to plan for the acquisition of modern instrumentation to be accepted and in the process of implementation. The Committee recognizes that equipment purchase decisions lie outside of its purview and expects that the Centre will proceed through normal channels of advocacy for these resources.

Implementation Plan (1st Priority)

| | |
|---------------------------------|---|
| Responsible for approving: | Centre |
| Responsible for resources: | Centre |
| Responsible for implementation: | Centre |
| Timeline: | Dean of Mathematics and Science to report by the end of academic year 2019/20 |

| Actions | Responsibility | Year One* | Year Two | Year Three |
|---|--------------------|-----------|----------|------------|
| Action #1 Acquire funding for purchasing modern instrumentation. | Department | C | | |
| Action #2 Hold meetings with the Chemistry department to discuss what instrumentation will be purchased. | Director/ Chair | O | | |

Comments 2020:

This year we applied for and received Fed Dev funding to support establishing a state-of-the-art testing, prototyping and early stage manufacturing centre at Brock. Among the various pieces of equipment that is being planned for the centre is a 2L benchtop fermentor with computer control. This equipment will be available for student training. Meetings between the BTEC director and the Chemistry Department are being planned to determine instrumentation to be purchased.

Comments 2021:

This past year we received a Fed Dev grant to support establishing a state-of-the-art testing, prototyping and early stage manufacturing centre at Brock. The equipment in this centre will be available for student training.

Recommendation #4

An additional group orientation during 1st year, prior to entering the undergraduate Biotechnology program could be helpful for new students. This could help students be proactive about seeking support of the guidance person when they need it and for planning future years.

ARC Disposition of the Recommendation

ARC considers the recommendation to be accepted and in the process of implementation.

Implementation Plan (1st Priority)

Responsible for approving: Centre
 Responsible for resources: Centre
 Responsible for implementation: Centre
 Timeline: Dean of Mathematics and Science to report by the end of academic year 2019/20

| Actions | Responsibility | Year One* | Year Two | Year Three |
|---|----------------|-----------|----------|------------|
| Action #1 Hold meetings in this upcoming year to discuss the creation of an additional group orientation during 1 st year, prior to entering the undergraduate Biotechnology program. | Director | O | | |

Comments 2020:

The Centre is working with Chemistry and Biology academic advisors and the MRT club to explore ways that such a session could be offered.

Comments 2021:

The Centre is working with Chemistry and Biology academic advisors and the MRT club to explore ways that such a session could be offered. Due to COVID this action did not happen this year.