

# Biotechnology

## Graduate and Undergraduate Review

### Year 1 (2020) - 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 (1<sup>st</sup> 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 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

On Target (T), Delayed (D), Complete (C), Complete and Ongoing (O)

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

### 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 (1<sup>st</sup> 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		

#### 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.

### 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 (1<sup>st</sup> 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.

**Recommendation #4**

An additional group orientation during 1<sup>st</sup> 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 (1<sup>st</sup> 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
<b>Action #1</b> Hold meetings in this upcoming year to discuss the creation of an additional group orientation during 1 <sup>st</sup> 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.