

UNIVERSITY COUNCIL  
**ACADEMIC PROGRAMS COMMITTEE**  
**REPORT FOR INFORMATION**

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**PRESENTED BY:** Terry Wotherspoon; Chair, Academic Program Committee

**DATE OF MEETING:** December 21, 2017

**SUBJECT:** **Deletions of Fields of Study**  
1) **Biochemistry and Biotechnology**  
2) **Biotechnology, Microbiology, and Immunology**

**COUNCIL ACTION:** **For Information Only**

**SUMMARY:**

The Academic Programs Committee approved the deletion of the Biochemistry and Biotechnology and the Biotechnology, Microbiology, and Immunology fields of study at its December 6, 2017 meeting. APC has authority to approve the deletion of a field of study unless the deletion has significant academic or financial implications, as outlined in the Academic and Curricular Changes Authority Chart which was approved by Council in June 2016.

- 1) The Biochemistry and Biotechnology field of study was established as a collaboration between the Department of Biochemistry and the Virtual College of Biotechnology. With the disestablishment of the Virtual College of Biotechnology in 2007, several core courses in biotechnology have been deleted while others have not been offered regularly due to limited resources or demand, so that maintenance of the program has required multiple course substitutions to fulfill requirements. There will be no courses deleted as a result of the deletion of this field of study.
- 2) The Biotechnology, Microbiology, and Immunology field of study were established in the late 1990s as a part of the Virtual College of Biotechnology. The programs built upon existing course offerings in Microbiology and Immunology as well as some new course offerings. The Virtual College of Biotechnology was disestablished in 2007 and the Biotechnology, Microbiology, and Immunology field of study has suffered from low enrolment and graduation rates. The specific courses that differentiate the Biotechnology, Microbiology, and Immunology program from the Microbiology and Immunology program will remain available as electives.

Students currently enrolled in both fields of study will be permitted to complete their program, but the effective termination date will be May 2018.

**ATTACHMENTS:**

- Report Form for Program Termination: Biochemistry and Biotechnology
- Report Form for Program Termination: Biotechnology, Microbiology, and Immunology

TO: Terry Wotherspoon, Chair, Academic Programs Committee  
FROM: Gordon DesBrisay, Vice Dean Academic  
DATE: November 2, 2017  
RE: Deletion of the B.Sc. Honours and Four-year programs in Biochemistry & Biotechnology, and in Biotechnology, Microbiology & Immunology

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This memo confirms that the College of Arts and Science supports the deletion of the Bachelor of Science programs in Biochemistry & Biotechnology, and in Biotechnology, Microbiology & Immunology, as set out in the Program Termination form. The specific courses in biotechnology have been deleted or are not offered regularly, due to lack of resources and/or limited demand.

Students who have begun work on these programs prior to May 2018 will be allowed to complete, per College of Arts and Science regulations. These students will be advised on a case-by-case basis.

The proposal to terminate the program was submitted to the Arts and Science Course and Program Challenge in August 2017, and was approved by the Academic Programs Committee (B.Sc.) on September 11, 2017. The proposal was approved by the College of Arts and Science Faculty Council on October 5, 2017.

  
Gordon DesBrisay



**Program(s) to be deleted: Biochemistry & Biotechnology**

**Effective date of termination: May 2018**

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**1. List reasons for termination and describe the background leading to this decision.**

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The origin of the Biochemistry & Biotechnology program was collaboration between the Department of Biochemistry and the Virtual College of Biotechnology (established in 2000 and closed in 2007). Maintenance of this program since the disestablishment of the Virtual College has required multiple course substitutions to fulfill requirements. Without the resources of the Virtual College to promote biotechnology programs such as this one, there has been dwindling enrollment.

As currently offered, the main differences that distinguish the more popular Biochemistry programs from the Biochemistry & Biotechnology programs are that the latter requires 2 fewer biochemistry courses, one additional genetics course, and 9 credit units of entrepreneurship or political economy courses (which were not in the original program requirements). A Biochemistry student will still be able to take the genetics and AREC/ENT/POLS courses within their open electives if they desire this knowledge, as they are offered regularly and are open to students in any program.

Students currently in these programs will be allowed to complete the requirements and convocate with this major within a reasonable period of time.

No courses will be deleted as a result of this program deletion.

**2. Technical information.**

2.1 Courses offered in the program and faculty resources required for these courses.

No courses are offered exclusively for this program.

2.2 Other resources (staff, technology, physical resources, etc) used for this program.

No resources are used exclusively for this program.

2.3 Courses to be deleted, if any.

None.

2.4 Number of students presently enrolled.

2017-18: 30

2.5 Number of students enrolled and graduated over the last five years.

Graduated:

2012: 4

2013: 4

2014: 3

2015: 9

2016: 1

Enrolled:

2012-13: 32

2013-14: 21

2014-15: 27

2015-16: 25

2016-17: 31

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### **3. Impact of the termination.**

#### Internal

3.1 What if any impact will this termination have on undergraduate and graduate students?  
How will they be advised to complete their programs?

Current undergraduate students in the Biochemistry & Biotechnology program will continue to be supported to the maximum program duration of 10 years. Undergraduate students who were considering this program will be encouraged to pursue the Biochemistry program, as it is largely the same, and to take the AREC/ENT/POLS courses if they are so inclined. There will be no impact on graduate students.

3.2 What impact will this termination have on faculty and teaching assignments?

None.

3.3 Will this termination affect other programs, departments or colleges?

It is anticipated that there will be a slight increase in enrolments in the Biochemistry program.

3.4 If courses are also to be deleted, will these deletions affect any other programs?

n/a

3.5 Is it likely, or appropriate, that another department or college will develop a program to replace this one?

No, most departments have already discontinued their Biotechnology programs.

3.6 Is it likely, or appropriate, that another department or college will develop courses to replace the ones deleted?

n/a

3.7 Describe any impact on research projects.

None. Any student projects will still be offered as Biochemistry projects.

3.8 Will this deletion affect resource areas such as library resources, physical facilities, and information technology?

No.

3.9 Describe the budgetary implications of this deletion.

None.

#### External

3.10 Describe any external impact (e.g. university reputation, accreditation, other institutions, high schools, community organizations, professional bodies).

None.

3.11 Is it likely or appropriate that another educational institution will offer this program if it is deleted at the University of Saskatchewan?

It is unlikely. Saskatchewan Polytechnic already offers a 2 year diploma in Bioscience Technology (renamed from a previous Biotechnology program).

#### Other

3.12 Are there any other relevant impacts or considerations?

No.

3.13 Please provide any statements or opinions received about this termination.

Please see memo from Gordon DesBrisay, Vice-Dean Academic, College of Arts and Science.

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DATE: November 22, 2017  
TO: Terry Wotherspoon, Chair, Academic Programs Committee, University Council  
FROM: Bill Roesler  
RE: Deletion of the B.Sc. Honours and Four-year in Biochemistry & Biotechnology

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This memo confirms that the Department of Biochemistry approved the deletion of the B.Sc. Honours and Four-year in Biochemistry & Biotechnology.

A handwritten signature in blue ink, appearing to read "Bill Roesler", is centered on a light yellow rectangular background.

Bill Roesler, Department Head

Cc: Kyle Anderson, Undergraduate Affairs Chair  
Alexis Dahl, Director of Programs, College of Arts and Science



**Program(s) to be deleted: Biotechnology, Microbiology & Immunology**

**Effective date of termination: May 2018**

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**1. List reasons for termination and describe the background leading to this decision.**

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The Biotechnology, Microbiology & Immunology programs were established as part of the “Virtual College of Biotechnology” and program priority initiative stemming from the VP Academic’s office in the late 1990s. The programs were built upon existing course offerings in MCIM (MICR prior to 2008) and some new courses offered by partner departments in the initiative. Several undergraduate programs in Biotechnology were established in the Virtual College and a number of courses were developed within the partner departments for the programs. With the passage of time, the Virtual College of Biotechnology was disestablished (2007) and the specific courses developed for the various programs have almost all disappeared from the Course Catalogue. Substitute courses were added to the Biotechnology, Microbiology & Immunology program, but the program has always suffered from low enrolment and graduation rates. The Honours program has had on average one graduate per year over this timeframe, indicating generally low student demand for this program. There are likely many reasons for this, including highly prescriptive program requirements and a drift away from the original biotechnology initiative by the departments partnered with the Virtual College. The specific courses that differentiate the Biotechnology, Microbiology & Immunology programs from the Microbiology & Immunology programs (PHIL 236.3, AREC 230.3, ENT 210.3, ENT 220.3, ENT 230.3, ENT 300.3, ENT 310.3 and POLS 326.3) will remain available as electives. Students interested in pursuing these topics with formal recognition may opt to pursue the Minor in Entrepreneurship in addition to their study in Microbiology & Immunology.

No courses will be deleted as a result of this program deletion.

**2. Technical information.**

2.1 Courses offered in the program and faculty resources required for these courses.

No courses are offered exclusively for this program.

2.2 Other resources (staff, technology, physical resources, etc) used for this program.

No resources are used exclusively for this program.

2.3 Courses to be deleted, if any.

None.

2.4 Number of students presently enrolled.



2017-18: 25

2.5 Number of students enrolled and graduated over the last five years.

Enrolled:

2012-13: 6

2013-14: 10

2014-15: 13

2015-16: 12

2016-17: 25

Graduated

2012: 1

2013: 2

2014: 2

2015: 4

2016: 3

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### **3. Impact of the termination.**

#### Internal

3.1 What if any impact will this termination have on undergraduate and graduate students?  
How will they be advised to complete their programs?

Current students will be allowed to complete their program.

3.2 What impact will this termination have on faculty and teaching assignments?

None.

3.3 Will this termination affect other programs, departments or colleges?

It is anticipated that there will be a slight increase in enrolments in the Microbiology & Immunology program.

3.4 If courses are also to be deleted, will these deletions affect any other programs?

n/a

3.5 Is it likely, or appropriate, that another department or college will develop a program to replace this one?

No.

3.6 Is it likely, or appropriate, that another department or college will develop courses to replace the ones deleted?

n/a

3.7 Describe any impact on research projects.

None. Any student projects will still be offered as Microbiology & Immunology projects.

3.8 Will this deletion affect resource areas such as library resources, physical facilities, and information technology?

No.

3.9 Describe the budgetary implications of this deletion.

None.

#### External

3.10 Describe any external impact (e.g. university reputation, accreditation, other institutions, high schools, community organizations, professional bodies).

None.

3.11 Is it likely or appropriate that another educational institution will offer this program if it is deleted at the University of Saskatchewan?

It is unlikely. Saskatchewan Polytechnic already offers a 2 year diploma in Bioscience Technology (renamed from a previous Biotechnology program).

#### Other

3.12 Are there any other relevant impacts or considerations?

No.

3.13 Please provide any statements or opinions received about this termination.

The Department of Microbiology and Immunology voted unanimously to propose deletion of this program.

Please see memo from Gordon DesBrisay, Vice-Dean Academic, College of Arts and Science.

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## MEMO

DATE: November 21, 2017

TO: Terry Wotherspoon, Chair, Academic Programs Committee, University Council

FROM: Jo-Anne Dillon, Head, Department of Microbiology and Immunology

RE: Deletion of the B.Sc. Honours and Four-year in Biotechnology, Microbiology & Immunology

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This memo confirms that the Department of Microbiology and Immunology has approved the deletion of the B.Sc. Honours and Four-year in Biotechnology, Microbiology & Immunology.

*Jo-Anne Dillon*

Jo-Anne R Dillon PhD, FCAHS, FRSC  
Distinguished Professor and Head, Department of Microbiology and Immunology

cc: Harold Bull, Undergraduate Affairs Chair  
Alexis Dahl, Director of Programs, College of Arts and Science