



Lakehead University

Faculty of Science and Environmental Studies

REQUEST REPORT

Request Tracking Number: 2015-SCI-5298
Request Title: Program-MinorModification-Biology with Concurrent Education

[DeAcTerm[EffectiveDate]] [DeAc[RequestEffectiveDate]]
Request Status: In Workflow
Request can be split

Request Contents

Type	Title
1. New Version of a Degree	BSc, BEd (Natural Science Major) P/J
2. New Version of a Degree	Honours BSc, BEd (Biology Major) I/S

Request History

Workflow Step	Workflow Action	User	Change Made	Comments	Date
Initiator	Approved	Eleanor Maunula	Yes	Submitted to workflow	10/29/2015
Submission Review (Academic & Curriculum Development Coordinator)	Approved	submission review	No	Approved	10/29/2015

Supporting Documents

File Name	Uploaded By	Upload Date	Size
-----------	-------------	-------------	------

Supporting Documents Audit Trail

File Name	User	Date	Action
-----------	------	------	--------

Notes

Date	User	Note
10/29/2015	Eleanor	Submitted into workflow.

	Maunula	
--	---------	--

1.	New Version of a Degree	BSCBED.NATU.PJ - BSc, BEd (Natural Science Major) P/J
----	-------------------------	---

Degree Details

CURRENT VERSION	PROPOSED VERSION
BSCBED.NATU.PJ - BSc, BEd (Natural Science Major) P/J Start Term: Fall 2013 End Term: No Specified End Date	BSCBED.NATU.PJ - BSc, BEd (Natural Science Major) P/J Start Term: Fall 2013 2016-17 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Education	Institution Unit Faculty of Education
Degree Type BSBED	Degree Type BSBED
Major NATU	Major NATU
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4470, 4414, 0450, 4019) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BSCBED.NATU.PJ.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4470, 4414, 0450, 4019) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BSCBED.NATU.PJ. <i>This change is for (a) housekeeping and (b) to conform to the new ICR.</i>
Requirements Four Year program A cumulative average of 65% in all courses is required. See Department of Undergraduate Studies in Education, Academic Regulation #2, regarding the average in the major. First Year: (a) Biology 1110, 1130 (b) One FCE in English, with at least one of the literature courses (English 1111 or 1112). For English Majors both English 1111 and English 1112 are required. (c) One FCE elective from either Group I or Group II (English excluded) (see Faculty of Social Sciences and Humanities Regulations, First Year Arts Program	Requirements Four Year program A cumulative average of 65% in all courses is required. See Department of Undergraduate Studies in Education, Academic Regulation #2, regarding the average in the major. Five Year program <i>Prior to Entry into the 2-Year Professional Program</i>

- Grouping Requirements)
 (d) History 1100
 (e) One half-course in Music or Visual Arts
 (f) One half-course elective

Second Year:

- (a) Biology 2171, 2210, 2230
 (b) A half-course in Biology at the second or third year level
 (c) One FCE in English at the second year level
 (d) One FCE in Science, excluding Biology (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)
 (e) Education 1499 and 2399 (0.5 FCEs x 2 = 1 FCE)

Third Year:

- (a) Two FCEs in Biology at the third or fourth year level
 (b) One FCE in a Science other than Biology
 (c) One FCE elective
 (d) Education 2010 (0.5 FCE)
 (e) Two Education electives (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 2 = 0.5 FCE)
 *Education 3239 may be taken for credit more than once if the topics are different.

Note: Concurrent Education students should check the timetable for non-Professional Year course offerings.

Fourth Year (Professional Year):

- (a) Core:
 (i) Education 4417, 4418 and 4490 (.25 FCE x 2 + 0.5 FCE x 1 = 1 FCE)
 (ii) Education 4412, 4413, 4416 (.25 FCE x 4 = .75 FCE)
 (b) Curriculum and Instruction in Primary-Junior Education:
 (i) Education 4012 and 4050 (0.5 FCE x 2 = 1 FCE) and Education 0450 (mandatory non-credit course)
 (ii) Education 3013 (.25 FCE)
 (iii) Education 4013, 4014, 4015, 4016, 4017, 4018, 4019 (.25 FCE x 7 = 1.75 FCEs)
 (iv) One Education .25 FCE elective (see Electives in the Department of Undergraduate Studies in Education Courses list)*
 (c) Student Teaching:
 (i) Education 4499 (0.5 FCE)
 *Education 3239 and 3259 may be taken for credit more than once if the topics are different

In concurrent Education programs at the Primary/Junior level, students must meet and complete requirements of the partnering Bachelor degree program including all Pre-Professional Program Education requirements. (See Concurrent Degree Programs Information for Education requirements.)

First Year:

- (a) Biology 1110, 1130

(b) One FCE in English, ~~with at least one of the literature courses (English 1111 or 1112). For English Majors both English 1111 and English 1112 are required.~~ *French or an Indigenous Language*

(c) One FCE ~~elective from either Group I or Group II (English excluded) (see Faculty of Social Sciences and Humanities Regulations, First Year Arts Program Grouping Requirements)(d) History 1100(e) One half-course Type A and/or Type B course(s)~~

(d) One-half FCE in Music or Visual Arts

(fe) One half-course elective FCE elective(s)

(f) Education 1050

Second Year:

- (a) Biology 2171, 2210, 2230

(b) ~~A One-half course FCE~~ in Biology at the second or ~~third~~-year level *or above*

(c) One FCE ~~in English~~ *Type A and/or B course(s)* at the second year level *or above*

(d) One FCE ~~in Science, excluding~~ *Type C course(s) not in* Biology (General Science 1000 recommended) (see Concurrent ~~Bachelor of~~ Education, ~~Concurrent~~ Content Regulations #1, regarding eligible Science courses)

(e) ~~Education 1499 and 2399 (0.5 FCEs x 2 = 1 FCE)~~ *One-half FCE elective*

(f) Education 2050

Third Year:

(a) ~~Two One-and-one-half~~ FCEs in Biology at the third or ~~fourth~~-year level *or above*

(b) ~~One FCE in a Science other than~~ Biology *3XXX (Aboriginal Plant Biology)*

(c) One FCE ~~elective~~ *(d) Education 2010 (0.5 FCE)* ~~(e) Two Education electives~~ *Type C course(s) excluding Biology*

(d) One FCE Type A and/or B course(s) at the third year level or above

(e) One-half FCE elective

	<p>(f) <i>One-half FCE Education elective</i> (see Electives in the Department of Undergraduate Studies in Education Courses list)</p> <p>* (.25 FCE x 2 = 0.5 FCE)* Education 3239 may be taken for credit more than once if the topics are different. Note: Concurrent Education students should check the timetable for nonPre-Professional Year Program course offerings.</p> <p>Fourth Year and Fifth Years (2-Year Professional Year Program): (a) Core: (i) Education 4417, 4418 and 4490 (.25 FCE x 2 + 0.5 FCE x 1 = 1 FCE) (ii) Education 4412, 4413, 4416 (.25 FCE x 4 = .75 FCE) (b) Curriculum and Instruction in Primary Junior Education: (i) Education 4012 and 4050 (0.5 FCE x 2 = 1 FCE) and Education 0450 (mandatory non-credit course) (ii) Education 3013 (.25 FCE) (iii) Education 4013, 4014, 4015, 4016, 4017, 4018, 4019 (.25 FCE x 7 = 1.75 FCEs) (iv) One Education .25 FCE elective (see Electives in the Department of Undergraduate Studies in Education Courses list)* (c) Student Teaching: (i) Education 4499 (0.5 FCE)* Education 3239 and 3259 may be taken for credit more than once if</p> <p>the topics are different Concurrent Education (Primary/Junior) requirements</p> <p><i>Note: This program fulfills the Indigenous Content Requirement by including Biology 3XXX.</i></p>
--	--

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment x

Student Enrolment Other Units	Student Enrolment Other Units x
Additional Resources	Additional Resources x
Teaching Loads	Teaching Loads x
TeachingSupport Services	TeachingSupport Services x
Outside Support	Outside Support x

2.	New Version of a Degree	HBSCBED2.BIOL.IS - Honours BSc, BEd (Biology Major) I/S
----	-------------------------	---

Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSCBED2.BIOL.IS - Honours BSc, BEd (Biology Major) I/S Start Term: 2015-16 End Term: No Specified End Date	HBSCBED2.BIOL.IS - Honours BSc, BEd (Biology Major) I/S Start Term: 2015 2016- 16 17 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Education	Institution Unit Faculty of Education
Degree Type HBSED	Degree Type HBSED
Major	Major
Minor	Minor
Specialization	Specialization
Rationale Implementation of the 2 Year BEd program requirements for concurrent program.	Rationale Implementation of the 2-Year BEd program requirements for concurrent program <i>This change is for (a) housekeeping and (b) to conform to the new ICR.</i>
Requirements Six Year program Prior to Entry into the 2-Year Professional Program In concurrent Education programs at the Intermediate/Senior level, students must meet and complete requirements of the partnering Honours degree program including all Pre-Professional Program Education requirements. (See Concurrent Honours Bachelor Degree Programs Information for Education requirements.) Notes: Students must choose two teachable subjects, the first of which is Biology for students in the BSc (Biology Major) degree program. (See Department of Undergraduate Studies in Education, Levels and Teachables)	Requirements Six Year program Prior to Entry into the 2-Year Professional Program In concurrent Education programs at the Intermediate/Senior level, students must meet and complete requirements of the partnering Honours degree program including <i>program including</i> all Pre-Professional Program Education requirements. (See Concurrent Honours Bachelor Degree Programs Information for Education requirements.)

The Biology programs permit students to select courses according to their career aspirations. In addition to a variety of elective courses there is a set of core courses. Each student is required to take **each of the following compulsory courses:**

Biology 1110 - Animal Biology
Biology 1130 - Plant Biology
Biology 2171 - Genetics
Biology 2210 - Introductory Ecology
Biology 2230 - Cell Biology
Biology 3671 - Evolutionary Concepts

Students are encouraged to select elective courses that are congruent with one of the following two lists: (a) Cell and Molecular Biology, (b) Ecology, Evolution and Environmental Biology.

Students are advised to contact a Biology advisor regarding elective courses. See the Biology Elective Lists.

First Year:

- (a) Biology 1110, 1130
- (b) Chemistry 1110, 1130
- (c) Mathematics 1151 and 1152 or Mathematics 1171 and 1172
- (d) One FCE in Science other than Biology
- (e) One half-course in English, French or an Indigenous Language
- (f) Education 1050

Note:

Students considering a career in the Health Sciences are advised to take Physics 1101, or Physics 1113 and 1133.

Second Year:

- (a) Biology 2171, 2210 and 2230
- (b) One half-course in English, French or an Indigenous Language
- (c) Mathematics 2310 and 2311 or Mathematics 3332 and 3334
- (d) Two of: Chemistry 2111, 2211, 2231
- (e) One half-course in Science other than Biology
- (f) Education 2050

Third Year:

- (a) Biology 3671
- (b) One and one-half FCEs selected from courses in Biology Electives List A
- (c) One and one-half FCEs selected from courses in Biology Electives List B
- (d) One half-course in Biology
- (e) One half-course non-Science elective

Notes: Students must choose two teachable subjects, the first of which is Biology for students in the BSc (Biology Major) degree program. (See Department of Undergraduate Studies in Education, Levels and Teachables)

The Biology programs permit students to select courses according to their career aspirations. In addition to a variety of elective courses there is a set of core courses. Each student is required to take each of the following compulsory courses:

Biology 1110 - Animal Biology

Biology 1130 - Plant Biology

Biology 2171 - Genetics

Biology 2210 - Introductory Ecology

Biology 2230 - Cell Biology

Biology 3671 - Evolutionary Concepts

Students are encouraged to select elective courses that are congruent with one of the following two lists: (a) Cell and Molecular Biology, (b) Ecology, Evolution and Environmental Biology.

Students are advised to contact a Biology advisor regarding elective courses. See the Biology Elective Lists.

First Year:

<p>(f) One half-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) Note: Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p>Notes: A student may in consultation with the department, may enter the Honours BSc program in Biology in any year providing an overall B (70%) average has been attained in the Biology courses of the preceding years.</p> <p>An overall average of at least 70% in all Biology courses taken in the fourth year must be maintained. Should the B (70%) average not be attained, the student may apply for the BSc (Biology) Five Year degree.</p> <p>At least ten Biology courses must be taken during the four years, six of which must be at the third year level or higher.</p> <p>The first three years of the Honours BSc program is the same as the first three years of the BSc (Biology Major) three year program.</p> <p>Fourth Year: (a) Three FCEs in Biology at the third year level or higher (b) One and one-half FCEs in Science at the third year level or higher (c) One half-course non-Science elective</p> <p>Note: Students considering graduate studies in Biology are encouraged to take Biology 4101.</p> <p>Fifth and Sixth Years (2-Year Professional Program): Concurrent Education (Intermediate/Senior) requirements</p>	<p>(a) Biology 1110, 1130</p> <p>(b) Chemistry 1110, 1130</p> <p>(c) Mathematics 1151 and 1152 or 1152, or Mathematics 1171 and 1172</p> <p>(d) One FCE in Science other than <i>Type C course not in</i> Biology</p> <p>(e) One-half course <i>FCE</i> in English, French or an Indigenous Language</p> <p>(f) Education 1050</p> <p>Note: Students considering a career in the Health Sciences are advised to take Physics 1101, or Physics 1113 and 1133.</p> <p>Second Year:</p> <p>(a) Biology 2171, 2210 and, 2230</p> <p>(b) One-half course <i>FCE</i> in English, French or an Indigenous Language</p> <p>(c) Mathematics 2310 and 2311 or Mathematics 3332 <i>2311, or Mathematics 3332</i> and 3334</p>
<p>Printed: 10/29/2015</p>	<p>10</p>

(d) Two of: Chemistry 2111, 2211, 2231

(e) One-half ~~-FCE Type C~~ course *not* in ~~Science other than~~ Biology

(f) Education 2050

Third Year:

(a) Biology 3671, *3XXX (Aboriginal Plant Biology)*

(b) One and one-half FCEs selected from courses in Biology Electives List A

(c) One and one-half FCEs selected from courses in Biology Electives List B

(d) One ~~half course in Biology~~-half FCE that is *not Type C*

(e) One ~~half course non-Science elective~~ (f) ~~One half course~~-half FCE Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)

Note: Concurrent Education students should check the timetable for Pre-Professional Program course offerings.

Notes:

1. A student may in consultation with the department, may enter the Honours BSc program in Biology in any year providing an overall B (70%) average has been attained in the Biology courses of the preceding years.

2. An overall average of at least 70% in all Biology courses taken in the fourth year must be maintained. Should the B (70%) average not be attained, the student may apply for the BSc (Biology) Five Year degree.

3. At least ten Biology courses must be taken during the four years, six of which must be at the third year level or higher.

4. The first three years of the Honours BSc program is the same as the first three years of the BSc (Biology Major) three year program.

Fourth Year:

(a) Three FCEs in Biology at the third year level or higher

(b) One-and-one-half FCEs ~~in Science~~ *Type C courses* at the third year level or higher

(c) One ~~half course non-Science~~ *elective* ~~Note:~~ *-half FCE that is not Type C*

Notes:

	<p>1. Students considering graduate studies in Biology are encouraged to take Biology 4101.</p> <p>2. <i>This program fulfills the Indigenous Content Requirement by including Biology 3XXX.</i></p> <p>Fifth and Sixth Years (2-Year Professional Program):</p> <p>Concurrent Education (Intermediate/Senior) requirements</p>
--	---

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment x	Student Enrolment x
Student Enrolment Other Units x	Student Enrolment Other Units x
Additional Resources x	Additional Resources x
Teaching Loads x	Teaching Loads x
TeachingSupport Services x	TeachingSupport Services x
Outside Support x	Outside Support x