



**Lakehead University**  
**Faculty of Science and Environmental Studies**  
Physics

REQUEST REPORT

**Request Tracking Number:** 2015-SCI-5290  
**Request Title:** Program-modifications-UG-PHYSICS-HBSCBED2-ICR update

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

**Request Contents**

Type	Title
1. New Version of a Degree	Honours BSc, BEd (Physics Major) I/S
2. New Version of a Degree	Honours BSc, BEd (Physics Major) P/J
3. New Version of a Degree	BSc, BEd (Physics Major) I/S
4. New Version of a Degree	BSc, BEd (Physics Major) P/J

**Request History**

Workflow Step	Workflow Action	User	Change Made	Comments	Date
Initiator	Approved	Kristine Carey	Yes	Submitted to workflow	10/27/2015
Submission Review (Academic & Curriculum Development Coordinator)	Approved	submission review	No	Approved	10/29/2015

**Supporting Documents**

File Name	Uploaded By	Upload Date	Size
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**Supporting Documents Audit Trail**

File Name	User	Date	Action
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**Notes**

Printed: 10/29/2015

Date	User	Note
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1.	New Version of a Degree	HBSCBED2.PHYS.IS - Honours BSc, BEd (Physics Major) I/S
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### Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSCBED2.PHYS.IS - Honours BSc, BEd (Physics Major) I/S <b>Start Term:</b> 2015-16 <b>End Term:</b> No Specified End Date	HBSCBED2.PHYS.IS - Honours BSc, BEd (Physics Major) I/S <b>Start Term:</b> <del>2015</del> 2016-16 17 <b>End Term:</b> No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
<b>Institution Unit</b> Faculty of Education	<b>Institution Unit</b> Faculty of Education
<b>Degree Type</b> HBSED	<b>Degree Type</b> HBSED
<b>Major</b>	<b>Major</b>
<b>Minor</b>	<b>Minor</b>
<b>Specialization</b>	<b>Specialization</b>
<b>Rationale</b> Implementation of the 2 Year BEd program requirements for concurrent program.	<b>Rationale</b> <del>Implementation of the 2-Year BEd program requirements for concurrent program</del> <i>The change is being made to meet University policy re: Indigenous Content Requirement.</i>
<b>Requirements</b>  Six Year program A cumulative average of 70% in all Physics courses is required.  <b>Prior to Entry into the 2-Year Professional Program</b> In concurrent Education programs at the Junior/Intermediate level, students must meet and complete requirements of the partnering Honours degree program including all Pre-Professional Program Education requirements. (See Concurrent Degree Programs Information for Education requirements).  <b>Note:</b> Students must choose a teachable subject. See Department of Undergraduate Studies in Education ,	<b>Requirements</b>  Six Year program A cumulative average of 70% in all Physics courses is required.  <b>Prior to Entry into the 2-Year Professional Program</b> In concurrent Education programs at the Junior/Intermediate level, students must meet and complete requirements of the partnering Honours degree program including all Pre-Professional Program Education requirements. (See Concurrent Degree Programs Information for Education requirements).  <b>Note:</b> Students must choose a teachable subject. See Department of Undergraduate Studies in Education ,

<p>Levels and Teachables.</p> <p><b>First Year:</b></p> <p>(a) Physics 1211 and 1212  (b) Mathematics 1171 and 1172  (c) Chemistry 1110 and 1130  (d) One FCE in English  (e) Computer Science 0411 or 1411  (f) Education 1050</p> <p><b>Second Year:</b></p> <p>(a) Physics 2111, 2151, 2211, 2311, 2331 and 2332  (b) Mathematics 2111 and 2131  (c) One half-course in Music or Visual Arts  (d) Education 2050</p> <p><b>Third Year:</b></p> <p>(a) Physics 3113, 3211 and 3231  (b) Physics 4113 or 4171  (c) Physics 3371 or 4211  (d) A Physics half-course elective at the third or fourth year level  (e) Mathematics 3131 and 3133  (f) One half-course elective  (g) One half-course Education elective (see Electives in Department of Undergraduate Studies in Education Courses list)  <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p><b>Fourth Year:</b></p> <p>(a) Physics 4115, 4411 and 4412  (b) Physics 4113 or 4171 (the one not previously taken)  (c) Physics 3371 or 4211 (the one not previously taken)  (d) One Physics half-course elective at the third or fourth year level  (e) Two FCE electives</p> <p><b>Fifth and Sixth Years (2-Year Professional Program):</b>  Concurrent Education (Junior/Intermediate) requirements</p>	<p>Levels and Teachables.</p> <p><b>First Year:</b></p> <p>(a) Physics 1211 and 1212  (b) Mathematics 1171 and 1172  (c) Chemistry 1110 and 1130  (d) One FCE in English  (e) Computer Science 0411 or 1411  (f) Education 1050</p> <p><b>Second Year:</b></p> <p>(a) Physics 2111, 2151, 2211, 2311, 2331 and 2332  (b) Mathematics 2111 and 2131  (c) One half-course in Music or Visual Arts  (d) Education 2050</p> <p><b>Third Year:</b></p> <p>(a) Physics 3113, 3211 and 3231  (b) Physics 4113 or 4171  (c) Physics 3371 or 4211  (d) A Physics half-course elective at the third or fourth year level  (e) Mathematics 3131 and 3133  (f) One-half <del>-course elective</del> <i>FCE elective from the list of Type E courses*</i>  (g) One half-course Education elective (see Electives in Department of Undergraduate Studies in Education Courses list)  <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p><b>Fourth Year:</b></p> <p>(a) Physics 4115, 4411 and 4412  (b) Physics 4113 or 4171 (the one not previously taken)  (c) Physics 3371 or 4211 (the one not previously taken)  (d) One Physics half-course elective at the third or fourth year level  (e) Two FCE electives</p> <p><b>Fifth and Sixth Years (2-Year Professional Program):</b>  Concurrent Education (Junior/Intermediate) requirements</p> <p><i>*The Indigenous Content Requirement is being met by the inclusion of 0.5 FCE chosen from the list of Type E courses taken as an elective in the 3rd year of the program.</i></p>
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<b><u>Budgetary Considerations</u></b>	
<b>CURRENT VERSION</b>	<b>PROPOSED VERSION</b>
<b>Student Enrolment</b> x	<b>Student Enrolment</b> <i>*no</i>
<b>Student Enrolment Other Units</b>	<b>Student Enrolment Other Units</b>

X	<del>no</del>
<b>Additional Resources</b> X	<b>Additional Resources</b> <del>no</del>
<b>Teaching Loads</b> X	<b>Teaching Loads</b> <del>no impact</del>
<b>TeachingSupport Services</b> X	<b>TeachingSupport Services</b> <del>no impact</del>
<b>Outside Support</b> X	<b>Outside Support</b> <del>no</del>

2.	New Version of a Degree	HBSCBED2.PHYS.PJ - Honours BSc, BEd (Physics Major) P/J
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### Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSCBED2.PHYS.PJ - Honours BSc, BEd (Physics Major) P/J <b>Start Term:</b> 2015-16 <b>End Term:</b> No Specified End Date	HBSCBED2.PHYS.PJ - Honours BSc, BEd (Physics Major) P/J <b>Start Term:</b> <del>2015</del> 2016-16 17 <b>End Term:</b> No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
<b>Institution Unit</b> Faculty of Education	<b>Institution Unit</b> Faculty of Education
<b>Degree Type</b> HBSED	<b>Degree Type</b> HBSED
<b>Major</b>	<b>Major</b>
<b>Minor</b>	<b>Minor</b>
<b>Specialization</b>	<b>Specialization</b>
<b>Rationale</b> Implementation of the 2 year BEd program requirements for concurrent program.	<b>Rationale</b> <del>Implementation of the 2 year BEd program requirements for concurrent program</del> <i>The change is being made to meet University policy re: Indigenous Content Requirement.</i>
<b>Requirements</b>  Six Year program A cumulative average of 70% in all Physics courses is required.  <b>Prior to Entry into the 2-Year Professional Program</b> In concurrent Education programs at the Primary/Junior level, students must meet and complete requirements of the partnering Honours degree program including all Pre-Professional Program Education requirements. (See Concurrent Degree Programs Information for Education requirements)  <b>First Year:</b> (a) Physics 1211 and 1212 (b) Mathematics 1171 and 1172	<b>Requirements</b>  Six Year program A cumulative average of 70% in all Physics courses is required.  <b>Prior to Entry into the 2-Year Professional Program</b> In concurrent Education programs at the Primary/Junior level, students must meet and complete requirements of the partnering Honours degree program including all Pre-Professional Program Education requirements. (See Concurrent Degree Programs Information for Education requirements)  <b>First Year:</b> (a) Physics 1211 and 1212 (b) Mathematics 1171 and 1172

<p>(c) Chemistry 1110 and 1130 (d) One FCE in English (e) Computer Science 0411 or 1411 (f) Education 1050</p> <p><b>Second Year:</b> (a) Physics 2111, 2151, 2211, 2311, 2331 and 2332 (b) Mathematics 2111 and 2131 (d) One half-course in Music or Visual Arts (e) Education 2050</p> <p><b>Third Year:</b> (a) Physics 3113, 3211 and 3231 (b) Physics 4113 or 4171 (c) Physics 3371 or 4211 (d) A Physics half-course elective at the third or fourth year level (e) Mathematics 3131 and 3133 (f) One half-course elective (g) One half-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p><b>Fourth Year:</b> (a) Physics 4115, 4411 and 4412 (b) Physics 4113 or 4171 (the one not previously taken) (c) Physics 3371 or 4211 (the one not previously taken) (d) One Physics half-course elective at the third or fourth year level (e) Two FCE electives</p> <p><b>Fifth and Sixth Years (2-Year Professional Program):</b> Concurrent Education (Primary/Junior) requirements</p>	<p>(c) Chemistry 1110 and 1130 (d) One FCE in English (e) Computer Science 0411 or 1411 (f) Education 1050</p> <p><b>Second Year:</b> (a) Physics 2111, 2151, 2211, 2311, 2331 and 2332 (b) Mathematics 2111 and 2131 (d) One half-course in Music or Visual Arts (e) Education 2050</p> <p><b>Third Year:</b> (a) Physics 3113, 3211 and 3231 (b) Physics 4113 or 4171 (c) Physics 3371 or 4211 (d) A Physics half-course elective at the third or fourth year level (e) Mathematics 3131 and 3133 (f) One <del>half-course elective</del> <i>half FCE elective from the list of Type E courses*</i> (g) One half-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p><b>Fourth Year:</b> (a) Physics 4115, 4411 and 4412 (b) Physics 4113 or 4171 (the one not previously taken) (c) Physics 3371 or 4211 (the one not previously taken) (d) One Physics half-course elective at the third or fourth year level (e) Two FCE electives</p> <p><b>Fifth and Sixth Years (2-Year Professional Program):</b> Concurrent Education (Primary/Junior) requirements</p> <p><i>*The Indigenous Content Requirement is being met by the inclusion of 0.5 FCE chosen from the list of Type E courses taken as an elective in the 3rd year of the program.</i></p>
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<b><u>Budgetary Considerations</u></b>	
<b>CURRENT VERSION</b>	<b>PROPOSED VERSION</b>
<b>Student Enrolment</b> x	<b>Student Enrolment</b> *no
<b>Student Enrolment Other Units</b> x	<b>Student Enrolment Other Units</b> *no
<b>Additional Resources</b> x	<b>Additional Resources</b> *no

<b>Teaching Loads</b> x	<b>Teaching Loads</b> <i>*no impact</i>
<b>TeachingSupport Services</b> x	<b>TeachingSupport Services</b> <i>*no impact</i>
<b>Outside Support</b> x	<b>Outside Support</b> <i>*no</i>



3.	New Version of a Degree	BSCBED2.PHYS.IS - BSc, BEd (Physics Major) I/S
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### Degree Details

CURRENT VERSION	PROPOSED VERSION
BSCBED2.PHYS.IS - BSc, BEd (Physics Major) I/S <b>Start Term:</b> 2015-16 <b>End Term:</b> No Specified End Date	BSCBED2.PHYS.IS - BSc, BEd (Physics Major) I/S <b>Start Term:</b> <del>2015</del> 2016-1617 <b>End Term:</b> No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
<b>Institution Unit</b> Faculty of Education	<b>Institution Unit</b> Faculty of Education
<b>Degree Type</b> BSBED	<b>Degree Type</b> BSBED
<b>Major</b>	<b>Major</b>
<b>Minor</b>	<b>Minor</b>
<b>Specialization</b>	<b>Specialization</b>
<b>Rationale</b> Implementation of the 2 year BEd program requirements for concurrent program.	<b>Rationale</b> <del>Implementation of the 2 year BEd program requirements for concurrent program</del> <i>The change is being made to meet University policy re: Indigenous Content Requirement.</i>
<b>Requirements</b>  Five Year program  <b>Prior to Entry into the 2-Year Professional Program</b> In concurrent Education programs at the Intermediate/Senior 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).  <b>Note:</b> Students must choose two teachable subjects, the first of which is Physics for students in the BSc, BEd (Physics Major) degree program. See Department of Undergraduate Studies in Education, Levels and Teachables.	<b>Requirements</b>  Five Year program  <b>Prior to Entry into the 2-Year Professional Program</b> In concurrent Education programs at the Intermediate/Senior 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).  <b>Note:</b> Students must choose two teachable subjects, the first of which is Physics for students in the BSc, BEd (Physics Major) degree program. See Department of Undergraduate Studies in Education, Levels and Teachables.

<p><b>First Year:</b>  (a) Physics 1211 and 1212  (b) Mathematics 1171 and 1172  (c) Chemistry 1110 and 1130  (d) One FCE in English  (e) Computer Science 0411 or 1411  (f) Education 1050</p> <p><b>Second Year:</b>  (a) Physics 2111, 2211, 2311, 2331, 2332  (b) Physics 2151 or one-half FCE elective  (c) Mathematics 2111, 2131  (d) One half-course elective  (e) Education 2050</p> <p><b>Third Year:</b>  (a) Physics 3113, 3211 and 3231  (b) Physics 2151 or one-half FCE elective (the one not previously taken)  (c) One FCE in Physics at the third or fourth year level  (d) Mathematics 3131, 3133  (e) One half-course elective  (f) One half-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)  <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings</p> <p><b>Fourth and Fifth Years (2-Year Professional Program):</b>  Concurrent Education (Intermediate/Senior) requirements</p>	<p><b>First Year:</b>  (a) Physics 1211 and 1212  (b) Mathematics 1171 and 1172  (c) Chemistry 1110 and 1130  (d) One FCE in English  (e) Computer Science 0411 or 1411  (f) Education 1050</p> <p><b>Second Year:</b>  (a) Physics 2111, 2211, 2311, 2331, 2332  (b) Physics 2151 or one-half FCE elective  (c) Mathematics 2111, 2131  (d) One <del>half-course elective</del> <i>half FCE elective from the list of Type E courses*</i>  (e) Education 2050</p> <p><b>Third Year:</b>  (a) Physics 3113, 3211 and 3231  (b) Physics 2151 or one-half FCE elective (the one not previously taken)  (c) One FCE in Physics at the third or fourth year level  (d) Mathematics 3131, 3133  (e) One half-course elective  (f) One half-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)  <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings</p> <p><b>Fourth and Fifth Years (2-Year Professional Program):</b>  Concurrent Education (Intermediate/Senior) requirements</p> <p><i>*The Indigenous Content Requirement is being met by the inclusion of 0.5 FCE chosen from the list of Type E courses taken as an elective in the 3rd year of the program.</i></p>
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<b><u>Budgetary Considerations</u></b>	
<b>CURRENT VERSION</b>	<b>PROPOSED VERSION</b>
<b>Student Enrolment</b> x	<b>Student Enrolment</b> <del>x</del> no
<b>Student Enrolment Other Units</b> x	<b>Student Enrolment Other Units</b> <del>x</del> no
<b>Additional Resources</b> x	<b>Additional Resources</b> <del>x</del> no
<b>Teaching Loads</b> x	<b>Teaching Loads</b> <del>x</del> no impact

<b>TeachingSupport Services</b> x	<b>TeachingSupport Services</b> <i>*no impact</i>
<b>Outside Support</b> x	<b>Outside Support</b> <i>*no</i>

4.	New Version of a Degree	BSCBED2.PHYS.PJ - BSc, BEd (Physics Major) P/J
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### Degree Details

CURRENT VERSION	PROPOSED VERSION
BSCBED2.PHYS.PJ - BSc, BEd (Physics Major) P/J <b>Start Term:</b> 2015-16 <b>End Term:</b> No Specified End Date	BSCBED2.PHYS.PJ - BSc, BEd (Physics Major) P/J <b>Start Term:</b> <del>2015</del> 2016-1617 <b>End Term:</b> No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
<b>Institution Unit</b> Faculty of Education	<b>Institution Unit</b> Faculty of Education
<b>Degree Type</b> BSBED	<b>Degree Type</b> BSBED
<b>Major</b>	<b>Major</b>
<b>Minor</b>	<b>Minor</b>
<b>Specialization</b>	<b>Specialization</b>
<b>Rationale</b> Implementation of the 2 year BEd program requirements for concurrent program.	<b>Rationale</b> <del>Implementation of the 2 year BEd program requirements for concurrent program</del> <i>The change is being made to meet University policy re: Indigenous Content Requirement.</i>
<b>Requirements</b>  Five Year program  <b>Prior to Entry into the 2-Year Professional Program</b> 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)  <b>First Year:</b> (a) Physics 1211 and 1212 (b) Mathematics 1171 and 1172 (c) Chemistry 1110 and 1130 (d) One FCE in English, French or Indigenous Language (e) Computer Science 0411 or 1411 (f) Education 1050	<b>Requirements</b>  Five Year program  <b>Prior to Entry into the 2-Year Professional Program</b> 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)  <b>First Year:</b> (a) Physics 1211 and 1212 (b) Mathematics 1171 and 1172 (c) Chemistry 1110 and 1130 (d) One FCE in English, French or Indigenous Language (e) Computer Science 0411 or 1411 (f) Education 1050

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<p><b>Second Year:</b>  (a) Physics 2111, 2211, 2311, 2331, 2332  (b) Mathematics 2111, 2131  (c) One half-course in Music or Visual Arts  (d) Physics 2151 or one half-course Science elective  (e) Education 2050</p> <p><b>Third Year:</b>  (a) Physics 3113, 3211 and 3231  (b) Physics 2151 or one-half FCE Science elective (the one not previously taken)  (c) One half-course in Physics at the third or fourth year level  (d) Mathematics 3131, 3133  (e) One FCE electives  (f) One half-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)  <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p><b>Fourth and Fifth Years (2-Year Professional Program):</b>  Concurrent Education (Primary/Junior) requirements</p>	<p><b>Second Year:</b>  (a) Physics 2111, 2211, 2311, 2331, 2332  (b) Mathematics 2111, 2131  (c) One half-course in Music or Visual Arts  (d) Physics 2151 or one half-course Science elective  (e) Education 2050</p> <p><b>Third Year:</b>  (a) Physics 3113, 3211 and 3231  (b) Physics 2151 or one-half FCE Science elective (the one not previously taken)  (c) One half-course in Physics at the third or fourth year level  (d) Mathematics 3131, 3133  (e) One <del>FCE electives</del> <i>half FCE elective from the list of Type E courses*</i>  (f) One-half <i>FCE elective</i>  (g) <i>One half</i>-course Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)  <b>Note:</b> Concurrent Education students should check the timetable for Pre-Professional Program course offerings.</p> <p><b>Fourth and Fifth Years (2-Year Professional Program):</b>  Concurrent Education (Primary/Junior) requirements</p> <p><i>*The Indigenous Content Requirement is being met by the inclusion of 0.5 FCE chosen from the list of Type E courses taken as an elective in the 3rd year of the program.</i></p>
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<b><u>Budgetary Considerations</u></b>	
<b>CURRENT VERSION</b>	<b>PROPOSED VERSION</b>
<b>Student Enrolment</b> x	<b>Student Enrolment</b> <del>x</del> no
<b>Student Enrolment Other Units</b> x	<b>Student Enrolment Other Units</b> <del>x</del> no
<b>Additional Resources</b> x	<b>Additional Resources</b> <del>x</del> no
<b>Teaching Loads</b> x	<b>Teaching Loads</b> <del>x</del> no impact
<b>TeachingSupport Services</b> x	<b>TeachingSupport Services</b> <del>x</del> no impact
<b>Outside Support</b>	<b>Outside Support</b>

x

~~x~~no