



Lakehead University
Faculty of Science and Environmental Studies

REQUEST REPORT

Request Tracking Number: 2013-SCI-2985
Request Title: Mapping Sciences Certificate Update

[DeAcTerm[EffectiveDate]] [DeAc[RequestEffectiveDate]]
Request Status: In Workflow
 Request can't be split

Request Contents

Type		Title
1.	New Version of a Degree	Honours BA (Geography Major)
2.	New Version of a Degree	Honours Bachelor of Environmental Science (Geography Major)
3.	New Version of a Degree	Honours BA, BEd (Geography Major) P/J
4.	New Version of a Degree	Honours BA, BEd (Geography Major) J/I
5.	New Version of a Degree	Honours BA, BEd (Geography Major) I/S
6.	New Version of a Degree	Honours BSc, BEd (Geography Major) J/I
7.	New Version of a Degree	Honours BSc, BEd (Geography Major) I/S
8.	New Version of a Degree	Geography Minor Program
9.	New Version of a Degree	BA, BEd (Geography Major) P/J
10.	New Version of a Degree	BSc, BEd (Geography Major) P/J
11.	New Version of a Degree	BSc, BEd (Geography Major) J/I
12.	New Version of a Degree	BSc, BEd (Geography Major) I/S
13.	New Version of a Degree	Certificate Program in Geomatics
14.	New Version of a Degree	Honours BSc (Geography Major)
15.	New Version of a Degree	Honours Bachelor of Environmental Studies (Geography Major)
16.	New Version of a Degree	Honours BSc, BEd (Geography Major) P/J
17.	New Version of a Degree	Honours BES, BEd (Geography Major) I/S
18.	New Version of a Degree	Honours BESc, BEd (Geography Major) I/S
19.	New Version of a Degree	BA (Geography Major)/Honours Bachelor of Outdoor Recreation
20.	New Version of a Degree	BSc (Geography Major)
21.	New Version of a Degree	Honours BSc (Geography with Geology Minor)
22.	New Version of a Degree	BA, BEd (Geography Major) J/I

23.	New Version of a Degree	BA, BEd (Geography Major) I/S
24.	New Version of a Course	Cartography
25.	New Version of a Course	Advanced GIS and Spatial Analysis
26.	New Course	Geographic Information Systems
27.	New Version of a Course	Remote Sensing

Request History

Workflow Step	Workflow Action	User	Change Made	Comments	Date
Initiator	Approved	Jennifer McKee	Yes	Submitted to workflow	12/20/2013
Dean and Faculty Council Review Stage	Approved	Christina Maenpaa	No	Approved at the SES January 9th Faculty Council Meeting. Approved by Andrew Dean	01/20/2014
Optional Dean - Education	Approved	Karen Anderson	No	Approved	01/31/2014
Optional Dean-Social Sciences and Humanities	Approved	Gillian Siddall	No	Approved	01/31/2014

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

Date	User	Note
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1.	New Version of a Degree	HBA.GEOG - Honours BA (Geography Major)
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBA.GEOG - Honours BA (Geography Major) Start Term: Fall 1999 End Term: No Specified End Date	HBA.GEOG - Honours BA (Geography Major) Start Term: Fall 1999 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type HBA	Degree Type HBA
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale	Rationale <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Four Year program First Year: Same as for the BA (Geography Major) Second Year: (a) Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives	Requirements Four Year program First Year: Same as for the BA (Geography Major) Second Year: (a) Geography 2211 2XXX, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives

<p>Third Year: (a) Geography 3251 or 3253 (b) Two FCEs in Geography at the third year level (c) Two and one-half FCE electives</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives</p>	<p>Third Year: (a) Geography 3251 or 3253 (b) Two Two and one-half FCEs in Geography at the third year level * (c) Two and one-half FCE electives</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives</p> <p><i>Notes: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>

<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

2.	New Version of a Degree	HBESC.GEOG - Honours Bachelor of Environmental Science (Geography Major)
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBESC.GEOG - Honours Bachelor of Environmental Science (Geography Major) Start Term: F-W 2013-14 End Term: No Specified End Date	HBESC.GEOG - Honours Bachelor of Environmental Science (Geography Major) Start Term: F-W 2013-14 Fall 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type HBESC	Degree Type HBESC
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBESc (Geography Major).	#2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBESc (Geography Major) <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements	Requirements

<p>Four Year program</p> <p>First Year: (a) Environmental Studies 1140 (b) Two FCEs from: Biology, Chemistry, Geology, Physics (c) One FCE from: Anthropology, Economics, English, History, Indigenous Learning, Philosophy, Political Science, Sociology (d) Mathematics 1151 and 1152 or Physics 1113 and 1133</p> <p>Second Year: (a) Environmental Studies 2013 and 2210 (b) One FCE Environmental Studies elective (Science Stream) (c) Geography 2211, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year: (a) Environmental Studies 3094 (b) One FCE Environmental Studies elective (Science Stream) (c) One half-course Environmental Studies elective (Science or Arts Stream) (d) Geography 3251 or 3253 (e) Two FCEs in Geography at the third year level (f) One half-course elective</p> <p>Fourth Year: (a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE electives</p>	<p>Four Year program</p> <p>First Year: (a) Environmental Studies 1140 (b) Two FCEs from: Biology, Chemistry, Geology, Physics (c) One FCE from: Anthropology, Economics, English, History, Indigenous Learning, Philosophy, Political Science, Sociology (d) Mathematics 1151 and 1152 or Physics 1113 and 1133</p> <p>Second Year: (a) Environmental Studies 2013 and 2210 (b) One FCE Environmental Studies elective (Science Stream) (c) Geography 22112XXX, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year: (a) Environmental Studies 3094 (b) One FCE Environmental Studies elective (Science Stream) (c) One half-course Environmental Studies elective (Science or Arts Stream) (d) Geography 3251 or 3253(e) Two Two and one-half FCEs in Geography at the third year level* (f) One half-course elective</p> <p>Fourth Year: (a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE electives</p> <p><i>Note:</i></p> <p><i>*Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i>

<p>Student Enrolment Other Units</p>	<p>Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
<p>Additional Resources</p>	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
<p>Teaching Loads</p>	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

3.	New Version of a Degree	HBABED.GEOG.PJ - Honours BA, BEd (Geography Major) P/J
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBABED.GEOG.PJ - Honours BA, BEd (Geography Major) P/J Start Term: Fall 2013 End Term: No Specified End Date	HBABED.GEOG.PJ - Honours BA, BEd (Geography Major) P/J Start Term: Fall 2013 2014 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 HBAED	Degree Type HBAED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0450, 4019) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for HBABED.GEOG.PJ.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0450, 4019) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for HBABED.GEOG.PJ. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Five Year program Prior to Entry into Professional Year In concurrent Education programs at the Primary/Junior level, students must meet and	Requirements Five Year program Prior to Entry into Professional Year In concurrent Education programs at the

complete requirements of the partnering honours bachelor degree program **prior to entry into the Professional Year** including:

1. 1 FCE in English, French or an Indigenous language
2. 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses)
3. One half-course in Music or Visual Arts (Visual Arts 0510 recommended)
4. Education 2010 (.5 FCE)
5. Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
6. Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 FCE x 4=1 FCE)
7. A minimum cumulative average of 65% and a minimum major average of 70%
8. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBA or HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BA (Geography Major)

Second Year:

- (a) Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811
- (b) One and one-half FCE electives

Third Year:

- (a) Geography 3251 or 3253
- (b) Two FCEs in Geography at the third year level
- (c) Two and one-half FCE electives

Fourth Year:

- (a) Three FCEs in Geography at the fourth year level
- (b) Two FCE electives

Fifth Year (Professional Year):

Concurrent honours Professional Year (Primary/Junior) requirements are:

These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.

Primary/Junior level, students must meet and complete requirements of the partnering honours bachelor degree program **prior to entry into the Professional Year** including:

1. 1 FCE in English, French or an Indigenous language
2. 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses)
3. One half-course in Music or Visual Arts (Visual Arts 0510 recommended)
4. Education 2010 (.5 FCE)
5. Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
6. Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 FCE x 4=1 FCE)
7. A minimum cumulative average of 65% and a minimum major average of 70%
8. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBA or HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BA (Geography Major)

Second Year:

- (a) Geography ~~2211~~2XXX, 2251, 2271, 2331, 2351, 2511, 2811
- (b) One and one-half FCE electives

Third Year:

- (a) ~~Geography 3251 or 3253~~(b) ~~Two~~ *Two and one-half* FCEs in Geography at the third year level*
- (c) Two and one-half FCE electives

*Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.*

Fourth Year:

- (a) Three FCEs in Geography at the fourth year level

	(b) Two FCE electives	
	Fifth Year (Professional Year): Concurrent honours Professional Year (Primary/Junior) requirements are:	
	-	0.0
	Education 4000 - Honours Concurrent Special Topic-	1.50
	Education 4490 - Essentials of Planning, Evaluation, and Classroom Management-	.50
	Education 4499 - Student Teaching in the Professional Year-	.50
	(b) Curriculum and Instruction in Primary/Junior Education: Education 4012 - Language Arts	.50
	Education 4013 - Teaching Early Literacy-	.25
	Education 4014 - Science & Technology-	.25
	Education 4015 - Social Studies-	.25
	Education 4016 - Visual Arts-	.25
	Education 4017 - Music-	.25
	Education 4018 - Health and Physical Education-	.25
	Education 4019 - Drama and Dance-	.25
	Education 4050 - Mathematics-	

	.50
(c) Education 3013 - Early Reading-	<u>.25</u>
Total FCEs	-
	5.50
<p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>	

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment</p> <p><i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units</p> <p><i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources</p> <p><i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads</p> <p><i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and</i></p>

	<p><i>teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

4.	New Version of a Degree	HBABED.GEOG.JI - Honours BA, BEd (Geography Major) J/I
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBABED.GEOG.JI - Honours BA, BEd (Geography Major) J/I Start Term: Fall 2013 End Term: No Specified End Date	HBABED.GEOG.JI - Honours BA, BEd (Geography Major) J/I Start Term: Fall 2013 2014 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 HBAED	Degree Type HBAED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBABED.GEOG.JI.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBABED.GEOG.JI. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the Junior/Intermediate level, students must meet and	Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the

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complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:

- 1 FCE in English, French or an Indigenous language
- 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses)
- One half-course in Music or Visual Arts (Visual Arts 0510 recommended)
- Education 2011 (.5 FCE)
- Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
- Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 x 4 = 1 FCE)
- At least 3 FCEs in a teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level, 5 FCEs if the teachable is French, a Music or Visual Arts degree if the teachable is Music or Visual Arts, and a Computer Science degree if the teachable is Computer Studies. For recognized J/I teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section.
- A minimum cumulative and teachable average of 65% and a minimum major average of 70%.
- Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBA or HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BA (Geography Major)

Second Year:

- Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811
- One and one-half FCE electives

Third Year:

- Geography 3251 or 3253
- Two FCEs in Geography at the third year level
- Two and one-half FCE electives

Fourth Year:

- Three FCEs in Geography at the fourth year level
- Two FCE electives

Fifth Year (Professional Year):

Concurrent honours Professional Year (Junior/Intermediate) requirements are:

Junior/Intermediate level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:

- 1 FCE in English, French or an Indigenous language
- 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses)
- One half-course in Music or Visual Arts (Visual Arts 0510 recommended)
- Education 2011 (.5 FCE)
- Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
- Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 x 4 = 1 FCE)
- At least 3 FCEs in a teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level, 5 FCEs if the teachable is French, a Music or Visual Arts degree if the teachable is Music or Visual Arts, and a Computer Science degree if the teachable is Computer Studies. For recognized J/I teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section.
- A minimum cumulative and teachable average of 65% and a minimum major average of 70%.
- Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBA or HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BA (Geography Major)

Second Year:

- Geography ~~2211~~2XXX, 2251, 2271, 2331, 2351, 2511, 2811
- One and one-half FCE electives

Third Year:

- ~~Geography 3251 or 3253~~(b) ~~Two~~ ~~Two~~ and ~~one-half~~ FCEs in Geography at the third year level* (eb) Two and one-half FCE electives

*Note: *Students also completing the Certificate Program in Geomatics are recommended to take*

These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.

Geography 3253 or Natural Resources Management 2270.

Fourth Year:

- (a) Three FCEs in Geography at the fourth year level
- (b) Two FCE electives

Fifth Year (Professional Year):

Concurrent honours Professional Year (Junior/Intermediate) requirements are:

-	0.0
Education 4000 - Honours Concurrent Special Topic 1.50 Education 4490 - Essentials of Planning, Evaluation, and Classroom Management-	.50
Education 4499 - Student Teaching in the Professional Year-	.50
(b) Curriculum and Instruction in Junior/Intermediate Education: Education 4112 - Language Arts	.50
Education 4113 - Teaching Literacy-	.25
Education 4114 - Science & Technology-	.25
Education 4115 - Social Studies-	.25
Education 4116 - Visual Arts-	.25
Education 4117 - Music-	.25
Education 4118 - Health and Physical Education-	.25
Education 4119 - Drama and Dance	

	.25	Education 4151 - Mathematics	
			.50
		(c) Curriculum and Instruction in one Intermediate teachable subject selected from: Education 4212 - Media Literacy in the Middle Years Language Arts-	
		Education 4214 - General Science-	
		Education 4215 - History-	
		Education 4216 - Visual Arts-	
		Education 4217 - Music (Vocal or Instrumental)-	
		Education 4218 - Health and Physical Education-	
		Education 4231 - Geography-	
		Education 4232 - French as a Second Language-	
		Education 4233 - Native Studies-	
		Education 4234 - Mathematics-	
		Education 4235 - Native Languages-	
		Education 4239 - Curriculum and Instruction: Tutorial in Education-	
		-	
			<u>.25</u>
		Total FCEs-	
			5.50
		These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.	

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i>

<p>Student Enrolment Other Units</p>	<p>Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
<p>Additional Resources</p>	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
<p>Teaching Loads</p>	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

5.	New Version of a Degree	HBABED.GEOG.IS - Honours BA, BEd (Geography Major) I/S
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBABED.GEOG.IS - Honours BA, BEd (Geography Major) I/S Start Term: Fall 2013 End Term: No Specified End Date	HBABED.GEOG.IS - Honours BA, BEd (Geography Major) I/S Start Term: Fall 2013 2014 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 HBAED	Degree Type HBAED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBABED.GEOG.IS.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBABED.GEOG.IS. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the Intermediate/Senior level, students must meet and	Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the

<p>complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416 (.25 x 3 = .75 FCE) Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended) A minimum cumulative and teachable average of 65% and a minimum major average of 70%. At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBA or HBSc program, prior to entering the Professional Year.</p> <p>First Year: Same as for the BA (Geography Major)</p> <p>Second Year: (a) Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives</p> <p>Third Year: (a) Geography 3251 or 3253 (b) Two FCEs in Geography at the third year level (c) Two and one-half FCE electives</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in</p>	<p>Intermediate/Senior level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416 (.25 x 3 = .75 FCE) Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended) A minimum cumulative and teachable average of 65% and a minimum major average of 70%. At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBA or HBSc program, prior to entering the Professional Year.</p> <p>First Year: Same as for the BA (Geography Major)</p> <p>Second Year: (a) Geography 22112XXX, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives</p> <p>Third Year: (a) Geography 3251 or 3253(b) Two <i>Two and one-half</i> FCEs in Geography at the third year level* (eb) Two and one-half FCE electives</p> <p><i>Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p> <p>Fourth Year:</p>
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Ontario.	<p>(a) Three FCEs in Geography at the fourth year level (b) Two FCE electives</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
TeachingSupport Services	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA</i></p>

	<i>allocations.</i>
Outside Support	<p>Outside Support</p> <p><i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

6.	New Version of a Degree	HBSCBED.GEOG.JI - Honours BSc, BEd (Geography Major) J/I
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSCBED.GEOG.JI - Honours BSc, BEd (Geography Major) J/I Start Term: Fall 2013 End Term: No Specified End Date	HBSCBED.GEOG.JI - Honours BSc, BEd (Geography Major) J/I Start Term: Fall 2013 2014 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 GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 447, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBSCBED.GEOG.JI.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 447, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBSCBED.GEOG.JI. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the Junior/Intermediate level, students must meet and	Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the

<p>complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses) One half-course in Music or Visual Arts (Visual Arts 0510 recommended) Education 2011 (.5 FCE) Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 x 4 = 1 FCE) At least 3 FCEs in a teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level, 5 FCEs if the teachable is French, a Music or Visual Arts degree if the teachable is Music or Visual Arts, and a Computer Science degree if the teachable is Computer Studies. For recognized J/I teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. A minimum cumulative and teachable average of 65% and a minimum major average of 70%. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBSc program, prior to entering the Professional Year.</p> <p>First Year: Same as for the BSc (Geography Major)</p> <p>Second Year: (a) Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives</p> <p>Third Year: (a) Geography 3251 or 3253 (b) Two FCEs in Geography at the third year level (c) One FCE elective in Science (Geography excluded) (d) One and one-half FCE electives</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives in Science</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year</p>	<p>Junior/Intermediate level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses) One half-course in Music or Visual Arts (Visual Arts 0510 recommended) Education 2011 (.5 FCE) Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 x 4 = 1 FCE) At least 3 FCEs in a teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level, 5 FCEs if the teachable is French, a Music or Visual Arts degree if the teachable is Music or Visual Arts, and a Computer Science degree if the teachable is Computer Studies. For recognized J/I teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. A minimum cumulative and teachable average of 65% and a minimum major average of 70%. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBSc program, prior to entering the Professional Year.</p> <p>First Year: Same as for the BSc (Geography Major)</p> <p>Second Year: (a) Geography 22112XXX, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives</p> <p>Third Year: (a) Geography 3251 or 3253(b) Two Two and one-half FCEs in Geography at the third year level* (eb) One FCE elective in Science (Geography excluded) (ec) One and one-half FCE electives</p> <p><i>Note: *Students also completing the Certificate</i></p>
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<p>(Junior/Intermediate) requirements are:</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>	<p><i>Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives in Science</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Junior/Intermediate) requirements are: -</p> <p style="text-align: right;">0.0</p> <p>Education 4000 - Honours Concurrent Special Topic 1.50 Education 4490 - Essentials of Planning, Evaluation, and Classroom Management- .50</p> <p>Education 4499 - Student Teaching in the Professional Year- .50</p> <p>(b) Curriculum and Instruction in Junior/Intermediate Education: Education 4112 - Language Arts .50</p> <p>Education 4113 - Teaching Literacy- .25</p> <p>Education 4114 - Science & Technology- .25</p> <p>Education 4115 - Social Studies- .25</p> <p>Education 4116 - Visual Arts- .25</p> <p>Education 4117 - Music- .25</p> <p>Education 4118 - Health and Physical Education- .25</p> <p>Education 4119 - Dance and Drama .25 Education 4151 - Mathematics- .50</p>
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	<p>(c) Curriculum and Instruction in one Intermediate teachable subject selected from: Education 4212 - Media Literacy in the Middle Years Language Arts-</p> <p>Education 4214 - General Science-</p> <p>Education 4215 - History-</p> <p>Education 4216 - Visual Arts-</p> <p>Education 4217 - Music (Vocal or Instrumental)-</p> <p>Education 4218 - Health and Physical Education-</p> <p>Education 4231 - Geography-</p> <p>Education 4232 - French as a Second Language-</p> <p>Education 4233 - Native Studies-</p> <p>Education 4234 - Mathematics-</p> <p>Education 4235 - Native Languages-</p> <p>Education 4239 - Curriculum and Instruction: Tutorial in Education-</p> <p>-</p> <p style="text-align: right;"><u>.25</u></p> <p>Total FCEs-</p> <p style="text-align: right;">5.50</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units

	<p><i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources</p> <p><i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads</p> <p><i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
TeachingSupport Services	<p>TeachingSupport Services</p> <p><i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
Outside Support	<p>Outside Support</p> <p><i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

7.	New Version of a Degree	HBSCBED.GEOG.IS - Honours BSc, BEd (Geography Major) I/S
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSCBED.GEOG.IS - Honours BSc, BEd (Geography Major) I/S Start Term: Fall 2013 End Term: No Specified End Date	HBSCBED.GEOG.IS - Honours BSc, BEd (Geography Major) I/S Start Term: Fall 2013 2014 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 GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBABED.GEOG.IS.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBABED.GEOG.IS. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the Intermediate/Senior level, students must meet and	Requirements Five Year program Prior to Entry into Professional Year In concurrent education programs at the

complete requirements of the partnering honours bachelor degree program **prior to entry into the Professional Year** including:

- 1 FCE in English, French or an Indigenous language
- Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
- Education 4412, 4413, 4416 (.25 x 3 = .75 FCE)
- Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended)
- A minimum cumulative and teachable average of 65% and a minimum major average of 70%.
- At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section.
- Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BSc (Geography Major)

Second Year:

- Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811
- One and one-half FCE electives

Third Year:

- Geography 3251 or 3253
- Two FCEs in Geography at the third year level
- One FCE elective in Science (Geography excluded)
- One and one-half FCE electives

Fourth Year:

- Three FCEs in Geography at the fourth year level
- Two FCE electives in Science

Fifth Year (Professional Year):

Concurrent honours Professional Year (Intermediate/Senior) requirements are:

Intermediate/Senior level, students must meet and complete requirements of the partnering honours bachelor degree program **prior to entry into the Professional Year** including:

- 1 FCE in English, French or an Indigenous language
- Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
- Education 4412, 4413, 4416 (.25 x 3 = .75 FCE)
- Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended)
- A minimum cumulative and teachable average of 65% and a minimum major average of 70%.
- At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section.
- Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BSc (Geography Major)

Second Year:

- Geography ~~2211~~2XXX, 2251, 2271, 2331, 2351, 2511, 2811
- One and one-half FCE electives

Third Year:

- ~~Geography 3251 or 3253~~(b) ~~Two~~ ~~Two~~ and ~~one-half~~ FCEs in Geography at the third year level*
- (eb) One FCE elective in Science (Geography excluded)
- (ec) One and one-half FCE electives

*Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.*

Fourth Year:

<p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>	<p>(a) Three FCEs in Geography at the fourth year level (b) Two FCE electives in Science</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>-</p> <p style="text-align: right;">1.50</p> <p>Education 4490 - Essentials of Planning, Evaluation, and Classroom Management-</p> <p style="text-align: right;">.50</p> <p>Education 4499 - Student Teaching in the Professional Year-</p> <p style="text-align: right;">.50</p> <p>Education 4213 - Literacy & Learning in the IS Curriculum <i>(if teachable is English, choose one Education elective)</i>-</p> <p style="text-align: right;">.25</p> <p>Education 4271 - Guiding Student Choices-</p> <p style="text-align: right;">.25</p> <p>Education 4273 - Preparing Intermediate/Senior Teacher Candidates for Junior/Intermediate (Grades 7 and 8) Classrooms- .25(b) Curriculum and Instruction in two teachable subjects (2.0 FCE) selected from: Education 4241 - History-</p> <p>Education 4242 - Social Sciences - General-</p> <p>Education 4244 - Mathematics-</p> <p>Education 4245 - Health and Physical Education-</p> <p>Education 4260 - Biology-</p> <p>Education 4261 - Chemistry-</p> <p>Education 4262 - General Science-</p> <p>Education 4263 - Geography-</p> <p>Education 4265 - Physics-</p> <p>Education 4280 - English-</p> <p>Education 4281 - French as a Second Language-</p> <p>Education 4283 - Native Studies-</p>
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	<p>Education 4284 - Outdoor Ecological and Experiential Education: Intermediate-Senior Environmental Science</p> <p>Education 4285 - Native Languages-</p> <p>Education 4288 - Tutorial in Education (Business, Computer Studies, Music-I, Music-V, Visual Arts)-</p> <p>1.0 FCE x 2-</p> <p style="text-align: right;">2.00</p> <p>(c) Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)</p> <p style="text-align: right;"><u>.25</u></p> <p>Total FCEs-</p> <p style="text-align: right;">5.50</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment</p> <p><i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units</p> <p><i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources</p> <p><i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>

<p>Teaching Loads</p>	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

8.	New Version of a Degree	MINOR.GEOG - Geography Minor Program
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Degree Details

CURRENT VERSION	PROPOSED VERSION
MINOR.GEOG - Geography Minor Program Start Term: F-W 2013-14 End Term: No Specified End Date	MINOR.GEOG - Geography Minor Program Start Term: F-W 2013-14 Fall 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type	Degree Type
Major	Major
Minor GEOG	Minor GEOG
Specialization	Specialization
Rationale	Rationale <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements An overall average of at least 60% is required in three full course equivalents, consisting of: (a) Geography 1120 or Geography 1140 (b) Two of: Geography 2211, 2331, 2351, 2511, 2811 (c) One FCE in Geography at the third year level	Requirements An overall average of at least 60% is required in three full course equivalents, consisting of: (a) Geography 1120 or Geography 1140 (b) Two of: Geography 2211 2XXX, 2331, 2351, 2511, 2811 (c) One FCE in Geography at the third year level

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

9.	New Version of a Degree	BABED.GEOG.PJ - BA, BEd (Geography Major) P/J
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BABED.GEOG.PJ - BA, BEd (Geography Major) P/J Start Term: Fall 2013 End Term: No Specified End Date	BABED.GEOG.PJ - BA, BEd (Geography Major) P/J Start Term: Fall 2013 2014 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 BABED	Degree Type BABED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BABEd.GEOG.PJ.Also,#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 BABED.GEOG.PJ.	Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BABEd.GEOG.PJ.Also,#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 BABED.GEOG.PJ.Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Four Year program A cumulative average of 65% in all courses is	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) Geography 1140
- (b) A minimum of 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) History 1100
- (d) One FCE elective from: Anthropology, Philosophy, Psychology, Sociology
- (e) One FCE elective in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)

Second Year:

- (a) Two FCEs from: Geography 2211, 2331, 2351, 2511 and 2811
- (b) One FCE in History at the second year level
- (c) One FCE in English (first year excluded)
- (d) Education 1499 and 2399 (0.5 FCEs x 2 = 1 FCE)

Third Year:

- (a) One FCE selected from Geography 3611, 3631, 3651, 3671, 3691, 3693
 - (b) One FCE in Geography at the third year level
 - (c) One half-course in Music or Visual Arts
 - (d) One half-course elective (The remaining half-course in Geography from Second Year recommended)
 - (e) One FCE elective
 - (f) Education 2010 (0.5 FCE)
 - (g) 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 3 = .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:

required. See Department of Undergraduate Studies in Education, Academic Regulation #2, regarding the average in the major.

First Year:

- (a) Geography 1140
- (b) A minimum of 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) History 1100
- (d) One FCE elective from: Anthropology, Philosophy, Psychology, Sociology
- (e) One FCE elective in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)

Second Year:

- (a) Two FCEs from: Geography ~~2244~~2XXX, 2331, 2351, 2511 and 2811
- (b) One FCE in History at the second year level
- (c) One FCE in English (first year excluded)
- (d) Education 1499 and 2399 (0.5 FCEs x 2 = 1 FCE)

Third Year:

- (a) One FCE selected from Geography 3611, 3631, 3651, 3671, 3691, 3693
 - (b) One FCE in Geography at the third year level
 - (c) One half-course in Music or Visual Arts
 - (d) One half-course elective (The remaining half-course in Geography from Second Year recommended)
 - (e) One FCE elective
 - (f) Education 2010 (0.5 FCE)
 - (g) 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 3 = .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)*

(i) Education 4499 (0.5 FCE) *Education 3239 and 3259 may be taken for credit more than once if the topics are different	(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
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

10.	New Version of a Degree	BSCBED.GEOG.PJ - BSc, BEd (Geography Major) P/J
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BSCBED.GEOG.PJ - BSc, BEd (Geography Major) P/J Start Term: Fall 2013 End Term: No Specified End Date	BSCBED.GEOG.PJ - BSc, BEd (Geography Major) P/J Start Term: Fall 2013 2014 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 GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BScBEd.GEOG.PJ.Also,#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.GEOG.PJ.	#2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BScBEd.GEOG.PJ.Also,#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.GEOG.PJ. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Four Year 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.

First Year:

- (a) Geography 1140
- (b) A minimum of 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) Two FCEs in Science (Geography excluded)
- (d) One FCE in Science, Geography excluded (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1 regarding eligible Science courses)

Second Year:

- (a) Two FCEs from Geography 2211, 2331, 2351, 2511, 2811
- (b) Two FCEs in Science
- (c) Education 1499 and 2399 (0.5 FCEs x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 3611, 3631, 3651, 3671, 3691, 3693
 - (b) One FCE in Geography at the third year level
 - (c) One half-course in Music or Visual Arts
 - (d) One FCE in Science
 - (e) One half-course elective
 - (f) Education 2010 (0.5 FCE)
 - (g) Two Education electives (see Electives in the Department of Undergraduate Studies in Education Courses* (.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 3 = .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

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) Geography 1140
- (b) A minimum of 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) Two FCEs in Science (Geography excluded)
- (d) One FCE in Science, Geography excluded (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1 regarding eligible Science courses)

Second Year:

- (a) Two FCEs from Geography ~~2211~~2XXX, 2331, 2351, 2511, 2811
- (b) Two FCEs in Science
- (c) Education 1499 and 2399 (0.5 FCEs x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 3611, 3631, 3651, 3671, 3691, 3693
 - (b) One FCE in Geography at the third year level
 - (c) One half-course in Music or Visual Arts
 - (d) One FCE in Science
 - (e) One half-course elective
 - (f) Education 2010 (0.5 FCE)
 - (g) Two Education electives (see Electives in the Department of Undergraduate Studies in Education Courses* (.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 3 = .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
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

11.	New Version of a Degree	BSCBED.GEOG.JI - BSc, BEd (Geography Major) J/I
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BSCBED.GEOG.JI - BSc, BEd (Geography Major) J/I Start Term: Fall 2013 End Term: No Specified End Date	BSCBED.GEOG.JI - BSc, BEd (Geography Major) J/I Start Term: Fall 2013 2014 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 GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BScBEd.GEOG.JI.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BSCBED.GEOG.JI.	Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BScBEd.GEOG.JI.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BSCBED.GEOG.JI. <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Four Year program A cumulative average of 65% in all courses is	Requirements Four Year program

required. See Department of Undergraduate Studies in Education, Academic Regulation #2, regarding the average in the major.

Students must choose a teachable subject. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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 in Science, Geography excluded (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)
- (d) Two FCEs in Science (Geography excluded)

Second Year:

- (a) Two FCEs from Geography 2211, 2331, 2351, 2511, 2811
- (b) Two FCEs in Science
- (c) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 3611, 3631, 3651, 3671, 3691, 3693
- (b) One FCE in Geography at the third year level
- (c) One half-course in Music or Visual Arts
- (d) One FCE in Science
- (e) One half-course elective
- (f) Education 2011 (0.5 FCE)
- (g) 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Junior-Intermediate Education:
 - (i) Education 4112 and 4151 (0.5 FCE x 2 = 1 FCE) and Education 0451 (mandatory non-credit course)
 - (ii) Education 4113, 4114, 4115, 4116, 4117, 4118, 4119 (.25 FCE x 7 = 1.75 FCEs)
 - (iii) One Curriculum and Instruction course (.25 FCE) in teaching field selected from: Education 4212, 4216, 4215, 4231, 4214, 4217, 4218, 4232, 4233, 4234,

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.

Students must choose a teachable subject. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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 in Science, Geography excluded (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)
- (d) Two FCEs in Science (Geography excluded)

Second Year:

- (a) Two FCEs from Geography 2211, 2331, 2351, 2511, 2811
- (b) Two FCEs in Science
- (c) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 3611, 3631, 3651, 3671, 3691, 3693
- (b) One FCE in Geography at the third year level
- (c) One half-course in Music or Visual Arts
- (d) One FCE in Science
- (e) One half-course elective
- (f) Education 2011 (0.5 FCE)
- (g) 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Junior-Intermediate Education:
 - (i) Education 4112 and 4151 (0.5 FCE x 2 = 1 FCE) and Education 0451 (mandatory non-credit course)
 - (ii) Education 4113, 4114, 4115, 4116, 4117, 4118, 4119 (.25 FCE x 7 = 1.75 FCEs)

<p>4235, 4239 (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.</p>	<p>(iii) One Curriculum and Instruction course (.25 FCE) in teaching field selected from: Education 4212, 4216, 4215, 4231, 4214, 4217, 4218, 4232, 4233, 4234, 4235, 4239 (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.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i></p>
Additional Resources	<p>Additional Resources <i>None</i></p>
Teaching Loads	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i></p>
TeachingSupport Services	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
Outside Support	<p>Outside Support <i>None</i></p>

12.	New Version of a Degree	BSCBED.GEOG.IS - BSc, BEd (Geography Major) I/S
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BSCBED.GEOG.IS - BSc, BEd (Geography Major) I/S Start Term: Fall 2013 End Term: No Specified End Date	BSCBED.GEOG.IS - BSc, BEd (Geography Major) I/S Start Term: Fall 2013 2014 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 GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BScBEd.GEOG.IS.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BSCBED.GEOG.IS.	#2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BScBEd.GEOG.IS.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BSCBED.GEOG.IS. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Four Year 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.

Students must choose two teachable subjects. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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) Three FCEs in Science (Geography excluded)

Second Year:

- (a) Two FCEs from Geography 2211, 2331, 2351, 2511, 2811
- (b) One FCE in second teachable subject (See Department of Undergraduate Studies in Education, Levels and Teachables.)
- (c) One FCE in Science
- (d) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 3611, 3631, 3651, 3671, 3691, 3693
- (b) One FCE in Geography at the third year level
- (c) One FCE in second teachable subject
- (d) One FCE in Science
- (e) Four Education electives (Education 2011 (0.5 FCE) recommended) (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 4 = 1 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Intermediate-Senior Education:
 - (i) Education 4213 or, if teachable is English, one of the Education electives listed in (iii) (.25 FCE)
 - (ii) Two Curriculum and Instruction courses in Teachable 1 and Teachable 2 selected from: Education 4241, 4242, 4244, 4245, 4260, 4261, 4262, 4263, 4265, 4280, 4281, 4283, 4284, 4288 (1 FCE x 2 = 2 FCEs)
 - (iii) Two Education .25 FCE electives (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 2 = 0.5 FCE)

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.

Students must choose two teachable subjects. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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) Three FCEs in Science (Geography excluded)

Second Year:

- (a) Two FCEs from Geography 2211, 2331, 2351, 2511, 2811
- (b) One FCE in second teachable subject (See Department of Undergraduate Studies in Education, Levels and Teachables.)
- (c) One FCE in Science
- (d) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 3611, 3631, 3651, 3671, 3691, 3693
- (b) One FCE in Geography at the third year level
- (c) One FCE in second teachable subject
- (d) One FCE in Science
- (e) Four Education electives (Education 2011 (0.5 FCE) recommended) (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 4 = 1 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Intermediate-Senior Education:
 - (i) Education 4213 or, if teachable is English, one of the Education electives listed in (iii) (.25 FCE)
 - (ii) Two Curriculum and Instruction courses in Teachable 1 and Teachable 2 selected from: Education 4241, 4242, 4244, 4245, 4260, 4261, 4262, 4263, 4265, 4280, 4281, 4283, 4284, 4288 (1 FCE x 2 = 2 FCEs)
 - (iii) Two Education .25 FCE electives (see Electives in the Department of Undergraduate Studies in

(iv) Education 4271, 4273 (.25 FCE x 2 = 0.5 FCE) (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.	Education Courses list)* (.25 FCE x 2 = 0.5 FCE) (iv) Education 4271, 4273 (.25 FCE x 2 = 0.5 FCE) (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.
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

13.	New Version of a Degree	CERT.MAPSCIENCE - Certificate Program in Geomatics
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Degree Details

CURRENT VERSION	PROPOSED VERSION
CERT.MAPSCIENCE - Certificate Program in Mapping Sciences Start Term: Fall 2004 End Term: No Specified End Date	CERT.MAPSCIENCE - Certificate Program in Mapping Sciences Geomatics Start Term: Fall 2004 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type	Degree Type
Major MAPS	Major MAPS
Minor	Minor
Specialization	Specialization
Rationale	<p><i>This proposed change is an updating and strengthening of the Department's existing Certificate Program in Mapping Sciences. The program has been a strong recruitment tool as it provides a concrete set of skills that graduates have found helpful to obtaining employment after graduation. We seek to continue to have this program as current as possible with respect to courses taught and resources (i.e., software and hardware). The proposed change is part of the implementation of the Department of Geography's Academic Plan (2012-2017) that was finalized in June 2012. In this Geography AP, there are several specific actions identified as relate to the existing Certificate Program, namely: 'Update our Mapping Certificate program and explore options for additional certificates' (Action item 1.5); 'Modernize lab and computer resources' (Action item 1.3.1); 'Improve our interdisciplinary programs and service teaching through synergies with other departments.' (Action item 1.3.2); 'Implement a fair and transparent system of course fees designed to support activities in laboratory- and field-based courses' (Action item 1.3.4). With respect to the Action item 1.5, the Dean of FSES had developed a document during summer 2012, identifying the Certificate in Mapping Sciences as one of five new or existing certificate programs to be</i></p>

	<p>updated and/or developed. The proposed changes speak to the updating of courses included in the Certificate Program and of the software used in their instruction (Action item 1.3.1) and the budgetary need to institute a laboratory fee to support software for some of the program's course (Action item 1.3.4). The Action item 1.3.2 relates to this proposal via the inclusion of a course taught by the Faculty of Natural Resources Management. The proposed change has numerous parts relating to the changes in program title, course sequencing and descriptions and learner outcomes, need for updated software, some with budgetary implications (either explicit money or in-kind contributions). The changing of course sequencing and description, particularly for the existing course Geography 3251, has implications for all honours Geography programs including those with concurrent Education.</p>
<p>Requirements</p> <p>On successful completion of the following five half-courses with an overall average of 70% students will be awarded a Certificate in Mapping Sciences.</p> <p>Required Courses: Geography 2211 - Map and Air Photo Interpretation Geography 3251 - Geographic Information Systems Geography 3253 - Cartography Geography 4211 - Advanced GIS & Spatial Analysis Geography 4231 - Remote Sensing</p>	<p>Requirements</p> <p>On successful completion of the following five half-courses with an overall average of 70% students will be awarded a Certificate in Mapping-Sciences Geomatics.</p> <p>Required Courses: Geography 2211-2XXX - Map and Air Photo Interpretation Geography 3251 - Introduction to Geomatics and Geographic Information Systems Natural Resources Management 2270 - Photogrammetry / Remote Sensing</p> <p>Geography 3253 - Cartography Geography 4211 - Advanced GIS & Spatial Analysis Geography 4231 - Remote Sensing</p>

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
<p>Student Enrolment</p>	<p>Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students, and hence to increase enrollment.</i></p>
<p>Student Enrolment Other Units</p>	<p>Student Enrolment Other Units <i>The revision to this program adds Natural Resources Management 2270 course, thus will increase enrollment in that course. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT</i></p>

	<p>2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</p>
Additional Resources	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of the Certificate Program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231). The NRMT 2270 course has an existing instructor; the addition of a cohort of Geography to the lecture component of this course has no effect on teaching load.</i></p>
TeachingSupport Services	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
Outside Support	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

14.	New Version of a Degree	HBSC.GEOG - Honours BSc (Geography Major)
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSC.GEOG - Honours BSc (Geography Major) Start Term: Fall 1999 End Term: No Specified End Date	HBSC.GEOG - Honours BSc (Geography Major) Start Term: Fall 1999 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type HBSC	Degree Type HBSC
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale	Rationale <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Four Year program First Year: Same as for the BSc (Geography Major) Second Year: (a) Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives	Requirements Four Year program First Year: Same as for the BSc (Geography Major) Second Year: (a) Geography 2211 2XXX, 2251, 2271, 2331, 2351, 2511, 2811 (b) One and one-half FCE electives

<p>Third Year: (a) Geography 3251 or 3253 (b) Two FCEs in Geography at the third year level (c) One FCE elective in Science (Geography excluded) (d) One and one-half FCE electives</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives in Science</p>	<p>Third Year: (a) Geography 3251 or 3253(b) Two Two and one-half FCEs in Geography at the third year level *</p> <p>(eb) One FCE elective in Science (Geography excluded) (ec) One and one-half FCE electives</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) Two FCE electives in Science</p> <p><i>Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of</i></p>

	<p><i>Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

15.	New Version of a Degree	HBES.GEOG - Honours Bachelor of Environmental Studies (Geography Major)
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBES.GEOG - Honours Bachelor of Environmental Studies (Geography Major) Start Term: Fall 2013 End Term: No Specified End Date	HBES.GEOG - Honours Bachelor of Environmental Studies (Geography Major) Start Term: Fall 2013 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type HBES	Degree Type HBES
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBES (Geography Major).	Rationale #2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBES (Geography Major) Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements	Requirements

<p>Four Year program</p> <p>First Year:</p> <p>(a) Environmental Studies 1140 (b) One FCE from: Biology, Chemistry, Geology, Physics (c) One FCE from History, Indigenous Learning, Philosophy (d) One FCE from: Economics, Political Science, Sociology (e) One FCE from English 1011, 1031, 1111, 1112</p> <p>Second Year:</p> <p>(a) Environmental Studies 2013 and 2210 (b) One FCE Environmental Studies elective (Science or Arts Stream) (c) Geography 2211, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year:</p> <p>(a) Environmental Studies 3094 (b) One FCE Environmental Studies elective (Arts Stream) (c) One half-course Environmental Studies elective (Science or Arts Stream) (d) Geography 3251 or 3253 (e) Two FCEs in Geography at the third year level (excluding Geography 3291 and 3292) (f) One half-course elective</p> <p>Fourth Year:</p> <p>(a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE electives</p>	<p>Four Year program</p> <p>First Year:</p> <p>(a) Environmental Studies 1140 (b) One FCE from: Biology, Chemistry, Geology, Physics (c) One FCE from History, Indigenous Learning, Philosophy (d) One FCE from: Economics, Political Science, Sociology (e) One FCE from English 1011, 1031, 1111, 1112</p> <p>Second Year:</p> <p>(a) Environmental Studies 2013 and 2210 (b) One FCE Environmental Studies elective (Science or Arts Stream) (c) Geography 22112XXX, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year:</p> <p>(a) Environmental Studies 3094 (b) One FCE Environmental Studies elective (Arts Stream) (c) One half-course Environmental Studies elective (Science or Arts Stream) (d) Geography 3251 or 3253(e) Two Two and one-half FCEs in Geography at the third year level* (excluding Geography 3291 and 3292) (f) One half-course elective</p> <p>Fourth Year:</p> <p>(a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE electives</p> <p><i>Note:</i></p> <p><i>*Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment</p> <p><i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take</i></p>

	<i>Geography concurrently with the Certificate Program.</i>
Student Enrolment Other Units	<p>Student Enrolment Other Units</p> <p><i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
Additional Resources	<p>Additional Resources</p> <p><i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
Teaching Loads	<p>Teaching Loads</p> <p><i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
TeachingSupport Services	<p>TeachingSupport Services</p> <p><i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
Outside Support	<p>Outside Support</p> <p><i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

16.	New Version of a Degree	HBSCBED.GEOG.PJ - Honours BSc, BEd (Geography Major) P/J
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSCBED.GEOG.PJ - Honours BSc, BEd (Geography Major) P/J Start Term: Fall 2013 End Term: No Specified End Date	HBSCBED.GEOG.PJ - Honours BSc, BEd (Geography Major) P/J Start Term: Fall 2013 2014 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 GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0450, 4019) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBSCBED.GEOG.PJ.	Rationale #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0450, 4019) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBSCBED.GEOG.PJ. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Five Year program Prior to Entry into Professional Year In concurrent Education programs at the Primary/Junior level, students must meet and	Requirements Five Year program Prior to Entry into Professional Year In concurrent Education programs at the

complete requirements of the partnering honours bachelor degree program **prior to entry into the Professional Year** including:

1. 1 FCE in English, French or an Indigenous language
2. 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses)
3. One half-course in Music or Visual Arts (Visual Arts 0510 recommended)
4. Education 2010 (.5 FCE)
5. Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
6. Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 FCE x 4=1 FCE)
7. A minimum cumulative average of 65% and a minimum major average of 70%
8. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BSc (Geography Major)

Second Year:

- (a) Geography 2211, 2251, 2271, 2331, 2351, 2511, 2811
- (b) One and one-half FCE electives

Third Year:

- (a) Geography 3251 or 3253
- (b) Two FCEs in Geography at the third year level
- (c) One FCE elective in Science (Geography excluded)
- (d) One and one-half FCE electives

Fourth Year:

- (a) Three FCEs in Geography at the fourth year level
- (b) Two FCE electives in Science

Fifth Year (Professional Year):

Concurrent honours Professional Year (Primary/Junior) requirements are:

These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.

Primary/Junior level, students must meet and complete requirements of the partnering honours bachelor degree program **prior to entry into the Professional Year** including:

1. 1 FCE in English, French or an Indigenous language
2. 1 FCE in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations, #1 regarding eligible Science courses)
3. One half-course in Music or Visual Arts (Visual Arts 0510 recommended)
4. Education 2010 (.5 FCE)
5. Education 4417 and 4418 (.25 FCE x 2 = .5 FCE)
6. Education 4412, 4413, 4416, and one Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list) (.25 FCE x 4=1 FCE)
7. A minimum cumulative average of 65% and a minimum major average of 70%
8. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students should also take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective.

Note:

For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBSc program, prior to entering the Professional Year.

First Year:

Same as for the BSc (Geography Major)

Second Year:

- (a) Geography ~~2211~~2XXX, 2251, 2271, 2331, 2351, 2511, 2811
- (b) One and one-half FCE electives

Third Year:

- (a) ~~Geography 3251 or 3253~~(b) ~~Two~~ *Two and one* FCEs in Geography at the third year level*
- (~~e~~b) One FCE elective in Science (Geography excluded)
- (~~e~~c) One and one-half FCE electives

*Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253*

Fourth Year:

- (a) Three FCEs in Geography at the fourth year level
- (b) Two FCE electives in Science

	<p>Fifth Year (Professional Year): Concurrent honours Professional Year (Primary/Junior) requirements are:</p> <p>-</p> <p style="text-align: right;">0.0</p> <p>Education 4000 - Honours Concurrent Special Topic-</p> <p style="text-align: right;">1.50</p> <p>Education 4490 - Essentials of Planning, Evaluation, and Classroom Management-</p> <p style="text-align: right;">.50</p> <p>Education 4499 - Student Teaching in the Professional Year-</p> <p style="text-align: right;">.50</p> <p>(b) Curriculum and Instruction in Primary/Junior Education: Education 4012 - Language Arts</p> <p style="text-align: right;">.50</p> <p>Education 4013 - Teaching Early Literacy-</p> <p style="text-align: right;">.25</p> <p>Education 4014 - Science & Technology-</p> <p style="text-align: right;">.25</p> <p>Education 4015 - Social Studies-</p> <p style="text-align: right;">.25</p> <p>Education 4016 - Visual Arts-</p> <p style="text-align: right;">.25</p> <p>Education 4017 - Music-</p> <p style="text-align: right;">.25</p> <p>Education 4018 - Health and Physical Education-</p> <p style="text-align: right;">.25</p> <p>Education 4019 - Drama and Dance-</p> <p style="text-align: right;">.25</p> <p>Education 4050 - Mathematics-</p>
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	.50
	(c) Education 3013 - Early Reading-
	<u>.25</u>
	Total FCEs
	-
	5.50
	These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.

<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i>
Additional Resources	Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics</i>

	<p><i>courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

17.	New Version of a Degree	HBESBED.GEOG.IS - Honours BES, BEd (Geography Major) I/S
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBESBED.GEOG.IS - Honours BES, BEd (Geography Major) I/S Start Term: Fall 2013 End Term: No Specified End Date	HBESBED.GEOG.IS - Honours BES, BEd (Geography Major) I/S Start Term: Fall 2013 2014 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 HESED	Degree Type HESED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBESBEd (Geography Major). Also, #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBESBED.GEOG.IS.	#2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBESBEd (Geography Major). Also, #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBESBED.GEOG.IS. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources

	<i>Management 2270 from this listing.</i>
<p>Requirements</p> <p>Five Year program</p> <p>Prior to Entry into Professional Year In concurrent education programs at the Intermediate/Senior level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416 (.25 x 3 = .75 FCE) Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended) A minimum cumulative and teachable average of 65% and a minimum major average of 70%. At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBESc or HBES program, prior to entering the Professional Year.</p> <p>First Year:</p> <ol style="list-style-type: none"> Environmental Studies 1140 One FCE from: Biology, Chemistry, Geology, Physics One FCE from History, Indigenous Learning, Philosophy One FCE from: Economics, Political Science, Sociology (e) One FCE from English 1011, 1031, 1111, 1112 <p>Second Year:</p> <ol style="list-style-type: none"> Environmental Studies 2013 and 2210 One FCE Environmental Studies elective (Science 	<p>Requirements</p> <p>Five Year program</p> <p>Prior to Entry into Professional Year In concurrent education programs at the Intermediate/Senior level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416 (.25 x 3 = .75 FCE) Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended) A minimum cumulative and teachable average of 65% and a minimum major average of 70%. At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBESc or HBES program, prior to entering the Professional Year.</p> <p>First Year:</p> <ol style="list-style-type: none"> Environmental Studies 1140 One FCE from: Biology, Chemistry, Geology, Physics One FCE from History, Indigenous Learning, Philosophy One FCE from: Economics, Political Science, Sociology (e) One FCE from English 1011, 1031, 1111, 1112 <p>Second Year:</p> <ol style="list-style-type: none"> Environmental Studies 2013 and 2210

<p>or Arts Stream) (c) Geography 2211, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year: (a) Environmental Studies 3094 (b) One FCE Environmental Studies elective (Arts Stream) (c) One half-course Environmental Studies elective (Science or Arts Stream) (d) Geography 3251 or 3253 (e) Two FCEs in Geography at the third year level (excluding Geography 3291 and 3292) (f) One half-course elective</p> <p>Fourth Year: (a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE elective</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>	<p>(b) One FCE Environmental Studies elective (Science or Arts Stream) (c) Geography 22112XXX, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year: (a) Environmental Studies 3094 (b) One FCE Environmental Studies elective (Arts Stream) (c) One half-course Environmental Studies elective (Science or Arts Stream) (d) Geography 3251 or 3253(e) Two Two and one-half FCEs in Geography at the third year level* (excluding Geography 3291 and 3292) (f) One half-course elective</p> <p><i>Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p> <p>Fourth Year: (a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE elective</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>-</p> <p style="text-align: right;">1.50</p> <p>Education 4490 - Essentials of Planning, Evaluation, and Classroom Management-</p> <p style="text-align: right;">.50</p> <p>Education 4499 - Student Teaching in the Professional Year-</p> <p style="text-align: right;">.50</p> <p>Education 4213 - Literacy & Learning in the IS Curriculum (<i>if teachable is English, choose one Education elective</i>)-</p> <p style="text-align: right;">.25</p> <p>Education 4271 - Guiding Student Choices-</p> <p style="text-align: right;">.25</p> <p>Education 4273 - Preparing Intermediate/Senior Teacher Candidates for Junior/Intermediate (Grades 7 and 8) Classrooms</p> <p style="text-align: right;">.25</p>
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	<p>(b) Curriculum and Instruction in two teachable subjects (2.0 FCE) selected from: Education 4241 - History</p> <p>Education 4242 - Social Sciences - General-</p> <p>Education 4244 - Mathematics-</p> <p>Education 4245 - Health and Physical Education-</p> <p>Education 4260 - Biology-</p> <p>Education 4261 - Chemistry-</p> <p>Education 4262 - General Science-</p> <p>Education 4263 - Geography-</p> <p>Education 4265 - Physics-</p> <p>Education 4280 - English-</p> <p>Education 4281 - French as a Second Language-</p> <p>Education 4283 - Native Studies-</p> <p>Education 4284 - Outdoor Ecological and Experiential Education: Intermediate-Senior Environmental Science -</p> <p>Education 4285 - Native Languages-</p> <p>Education 4288 - Tutorial in Education (Business, Computer Studies, Music-I, Music-V, Visual Arts)-</p> <p>1.0 FCE x 2-</p> <p style="text-align: right;">2.00</p>
	<p>(c) Education elective (see Electives in the Department of Undergraduate Studies in Education Courses list)</p> <p style="text-align: right;"><u>.25</u></p>
	<p>Total FCEs-</p> <p style="text-align: right;">5.50</p>
	<p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>

Budgetary Considerations

CURRENT VERSION	PROPOSED VERSION
<p>Student Enrolment</p>	<p>Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i></p>
<p>Student Enrolment Other Units</p>	<p>Student Enrolment Other Units <i>The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Geography degree program, particularly if a student is concurrently pursuing a Certificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Geomatics annually. See note 6) below concerning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the laboratory component of NRMT 2270.</i></p>
<p>Additional Resources</p>	<p>Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i></p>
<p>Teaching Loads</p>	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section</i></p>

for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.

18.	New Version of a Degree	HBESCBED.GEOG.IS - Honours BEd, BEd (Geography Major) I/S
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBESCBED.GEOG.IS - Honours BEd, BEd (Geography Major) I/S Start Term: Fall 2013 End Term: No Specified End Date	HBESCBED.GEOG.IS - Honours BEd, BEd (Geography Major) I/S Start Term: Fall 2013 2014 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 HSCED	Degree Type HSCED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBEScBEd (Geography Major). Also, #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBESCBED.GEOG.IS.	#2012-SCI-296 (replace ENST 1120 with ENST 1140) (referred 18Jan2013 and approved 25Apr2013) plus #2012-SCI-242 (discontinue ENST4800) and #2012-SCI-243 (add new ENST 4810) (referred 18Jan2013 and approved 22Mar2013) plus #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBEScBEd (Geography Major). Also, #2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program changes for HBESCBED.GEOG.IS. Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography

	<p><i>3523 or Natural Resources Management 2270 from this listing.</i></p>
<p>Requirements</p> <p>Five Year program</p> <p>Prior to Entry into Professional Year In concurrent education programs at the Intermediate/Senior level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416 (.25 x 3 = .75 FCE) Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended) A minimum cumulative and teachable average of 65% and a minimum major average of 70%. At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBESc or HBES program, prior to entering the Professional Year.</p> <p>First Year:</p> <ol style="list-style-type: none"> Environmental Studies 1140 Two FCEs from: Biology, Chemistry, Geology, Physics One FCE from: Anthropology, Economics, English, History, Indigenous Learning, Philosophy, Political Science, Sociology Mathematics 1151 and 1152 or Physics 1113 and 1133 <p>Second Year:</p> <ol style="list-style-type: none"> Environmental Studies 2013 and 2210 One FCE Environmental Studies elective (Science Stream) Geography 2211, 2251, 2271, 2331, 2351 	<p>Requirements</p> <p>Five Year program</p> <p>Prior to Entry into Professional Year In concurrent education programs at the Intermediate/Senior level, students must meet and complete requirements of the partnering honours bachelor degree program prior to entry into the Professional Year including:</p> <ol style="list-style-type: none"> 1 FCE in English, French or an Indigenous language Education 4417 and 4418 (.25 FCE x 2 = .5 FCE) Education 4412, 4413, 4416 (.25 x 3 = .75 FCE) Three Education electives (.25 x 3 = .75 FCE) (see Electives in the Department of Undergraduate Studies in Education Courses list) (Education 2011 (0.5 FCE) is recommended) A minimum cumulative and teachable average of 65% and a minimum major average of 70%. At least 5 FCEs in a first teachable subject and 3 FCEs in a second teachable subject, with at least one half-course (i.e., a minimum of 0.5 FCE) at the third or fourth-year level in each teachable subject (5 FCEs if the teachable is French, and a Computer Science, Music or Visual Arts degree if the teachable is Computer Studies, Music or Visual Arts). For recognized I/S teachable subjects and exceptions to the above regulation see Department of Undergraduate Studies in Education, Levels and Teachables section. Students in the Honours BA, BEd (Indigenous Learning Major) are required to take one FCE in Native Language, Visual Arts 2060/Indigenous Learning 2060 and English 2702/Indigenous Learning 2702. Students are encouraged to take one FCE in English at the first-year level, including at least one of English 1111 or 1112, in the First Year. Students are encouraged to choose either Education 3235 or 3270 as their Education elective. <p>Note: For students in concurrent honours bachelor degree programs, 2 (two) FCEs of required Education courses will be taken instead of electives in the HBESc or HBES program, prior to entering the Professional Year.</p> <p>First Year:</p> <ol style="list-style-type: none"> Environmental Studies 1140 Two FCEs from: Biology, Chemistry, Geology, Physics One FCE from: Anthropology, Economics, English, History, Indigenous Learning, Philosophy, Political Science, Sociology Mathematics 1151 and 1152 or Physics 1113 and 1133 <p>Second Year:</p> <ol style="list-style-type: none"> Environmental Studies 2013 and 2210 One FCE Environmental Studies elective (Science Stream)

<p>(d) Geography 2511 or 2811</p> <p>Third Year: (a) Environmental Studies 3094 One FCE Environmental Studies elective (Science Stream) (b) One half-course Environmental Studies elective (Science or Arts Stream) (c) Geography 3251 or 3253 (d) Two FCEs in Geography at the third year level (e) One half-course elective</p> <p>Fourth Year: (a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE elective</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>	<p>(c) Geography 22142XXX, 2251, 2271, 2331, 2351 (d) Geography 2511 or 2811</p> <p>Third Year: (a) Environmental Studies 3094 One FCE Environmental Studies elective (Science Stream) (b) One half-course Environmental Studies elective (Science or Arts Stream) (c) Geography 3251 or 3253(d) Two FCEs <i>Two and one-half FCEs</i> in Geography at the third year level* (e) One half-course elective</p> <p><i>Note: *Students also completing the Certificate Program in Geomatics are recommended to take Geography 3253 or Natural Resources Management 2270.</i></p> <p>Fourth Year: (a) Environmental Studies 4810 (b) Three FCEs in Geography at the fourth year level (c) One and one-half FCE elective</p> <p>Fifth Year (Professional Year): Concurrent honours Professional Year (Intermediate/Senior) requirements are:</p> <p>These course components meet Ontario College of Teachers requirements for teacher certification in Ontario.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. We may see some increase in enrollment in other Geography programs if students elect to take Geography concurrently with the Certificate Program.</i>
Additional Resources	Additional Resources <i>Fees to support annual software licenses for Geography 3253 and Geography 4231, which are part of this degree program, are discussed in the proposed changes specific to those courses.</i>

<p>Teaching Loads</p>	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings or to developing and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231).</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>The proposed addition of Natural Resources Management 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resources Management has run this course successfully for more than a decade and we see no reason to try to duplicate resources. The planned arrangement for NRMT 2270 is that Natural Resources Management will teach lecture and laboratory course content (as they do now) but The Department of Geography will contribute the time and expertise of one of our Technical Staff to assist in the delivery of the laboratory component of the course and particularly to support Geography and other students in the Certificate Program in Geomatics. The detail as to whether or not a unique laboratory section for students in the Certificate Program is still to be finalized. Like other laboratory-based geomatics courses, this course presents an on-going software maintenance cost and the Department of Geography has agreed to work with the Dean of Natural Resources Management to find creative ways to help with the annual software maintenance needs of the laboratory space used to deliver this course.</i></p>

19.	New Version of a Degree	HBORBA.GEOG - BA (Geography Major)/Honours Bachelor of Outdoor Recreation
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBORBA.GEOG - BA (Geography Major)/Honours Bachelor of Outdoor Recreation Start Term: F-W 2013-14 End Term: No Specified End Date	HBORBA.GEOG - BA (Geography Major)/Honours Bachelor of Outdoor Recreation Start Term: F-W 2013-14 Fall 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type HBORA	Degree Type HBORA
Major OUTD	Major OUTD
Minor	Minor
Specialization	Specialization
Rationale 2012-SOC-151 add OUTD 2910/2930 approved at 22Mar2013 Senate.2012-SOC-082 associated program changes approved at 25Apr2013 Senate.	Rationale 2012-SOC-151 add OUTD 2910/2930 approved at 22Mar2013 Senate.2012-SOC-082 associated program changes approved at 25Apr2013 Senate Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.
Requirements Four Year program First Year: (a) Outdoor Recreation 1010, 1150 (b) Outdoor Recreation 1910, 1930 (non-credit)	Requirements Four Year program First Year: (a) Outdoor Recreation 1010, 1150

<p>courses) (c) Geography 1140 (d) One of: Anthropology 1032 and 1034; Economics 1100; Political Science 1100; Psychology 1100; Sociology 1100 (e) Two FCEs from Group I, one of which must be English 1011 and 1031 (see Faculty of Social Sciences and Humanities, First Year Arts Program Grouping Requirements)</p> <p>Second Year: (a) Outdoor Recreation 2210, 2270, 2310, 2350, 2750, 2810 (b) Geography 2211 and one of: Geography 2331, 2351, 2511, 2811 (c) Outdoor Recreation 2910, 2930 (non-credit courses) (d) One FCE elective</p> <p>Third Year: (a) Outdoor Recreation 3050, 3370, 3511 (b) Three half-courses in Outdoor Recreation at the third year level (c) One half-course in Outdoor Recreation at the third or fourth year level (d) Two of the remaining three (in Second Year (b) above) from: Geography 2331, 2351, 2511, 2811 (d) One half-course open elective</p> <p>Fourth Year: (a) Four half-courses in Outdoor Recreation at the fourth year level (b) Two FCE electives in Geography at the third year level (c) One FCE open elective</p> <p>Note: Students in the program will only be allowed to take up to a maximum of one full course equivalent in Outdoor Recreation to count as open electives.</p> <p>(a) Specialization in Leadership</p> <p>Years 1 and 2 are the same as for the HBOR double-degree program.</p> <p>By the third year, students may select the leadership specialization which will be noted on their transcripts. Students must successfully complete five half courses from:</p> <p>Required Leadership Course: OUTD 3312, 4371 Elective Leadership Courses: OUTD 3075, 3171, 3310, 3311, 3331, 3410, 3610, 4075, 4131, 4311, 4411, 4611</p> <p>Courses may not be double-counted to complete a second specialization. OUTD 3075 and 4075 must be retaken with a new project in the second specialization.</p> <p>(b) Specialization in Parks</p>	<p>(b) Outdoor Recreation 1910, 1930 (non-credit courses) (c) Geography 1140 (d) One of: Anthropology 1032 and 1034; Economics 1100; Political Science 1100; Psychology 1100; Sociology 1100 (e) Two FCEs from Group I, one of which must be English 1011 and 1031 (see Faculty of Social Sciences and Humanities, First Year Arts Program Grouping Requirements)</p> <p>Second Year: (a) Outdoor Recreation 2210, 2270, 2310, 2350, 2750, 2810 (b) Geography 2211 2XXX and one of: Geography 2331, 2351, 2511, 2811 (c) Outdoor Recreation 2910, 2930 (non-credit courses) (d) One FCE elective</p> <p>Third Year: (a) Outdoor Recreation 3050, 3370, 3511 (b) Three half-courses in Outdoor Recreation at the third year level (c) One half-course in Outdoor Recreation at the third or fourth year level (d) Two of the remaining three (in Second Year (b) above) from: Geography 2331, 2351, 2511, 2811 (d) One half-course open elective</p> <p>Fourth Year: (a) Four half-courses in Outdoor Recreation at the fourth year level (b) Two FCE electives in Geography at the third year level (c) One FCE open elective</p> <p>Note: Students in the program will only be allowed to take up to a maximum of one full course equivalent in Outdoor Recreation to count as open electives.</p> <p>(a) Specialization in Leadership</p> <p>Years 1 and 2 are the same as for the HBOR double-degree program.</p> <p>By the third year, students may select the leadership specialization which will be noted on their transcripts. Students must successfully complete five half courses from:</p> <p>Required Leadership Course: OUTD 3312, 4371 Elective Leadership Courses: OUTD 3075, 3171, 3310, 3311, 3331, 3410, 3610, 4075, 4131, 4311, 4411, 4611</p> <p>Courses may not be double-counted to complete a second specialization. OUTD 3075 and 4075 must be retaken with a new project in the second specialization.</p> <p>(b) Specialization in Parks</p>
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<p>Years 1 and 2 are the same as for the HBOR double-degree program.</p> <p>By the third year, students may select the parks specialization which will be noted on their transcripts. Students must successfully complete five half courses from:</p> <p>Required Parks Course: OUTD 3811, 3812, 4810 Elective Parks Courses: OUTD 3075, 3410, 3610, 3731, 3771, 3831, 4075, 4170, 4411, 4611, 4732, 4813</p> <p>Courses may not be double-counted to complete a second specialization. OUTD 3075 and 4075 must be retaken with a new project in the second specialization.</p> <p>(c) Specialization in Tourism</p> <p>Years 1 and 2 are the same as for the HBOR double-degree program.</p> <p>By the third year, students may select the tourism specialization which will be noted on their transcripts. Students must successfully complete five half courses from:</p> <p>Required Tourism Courses: OUTD 3731, 3733, 3771 Elective Tourism Courses: OUTD 3075, 3410, 3531, 3715, 4075, 4510, 4732, 4733, 4734, 4813, 4917</p> <p>Students in the Tourism Specialization are recommended to take as electives the Entrepreneur Certificate courses in the Faculty of Business Administration.</p> <p>Courses may not be double-counted to complete a second specialization. OUTD 3075 and 4075 must be retaken with a new project in the second specialization.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. Students should consult with the Department for the suggested sequence in which these courses should be taken over the four years. 2. The admission requirements and general regulations for the Honours Bachelor of Outdoor Recreation four-year program (see School of Outdoor Recreation and Tourism) also apply to candidates for the BA (Geography Major)/Honours Bachelor of Outdoor Recreation four-year program. 	<p>Years 1 and 2 are the same as for the HBOR double-degree program.</p> <p>By the third year, students may select the parks specialization which will be noted on their transcripts. Students must successfully complete five half courses from:</p> <p>Required Parks Course: OUTD 3811, 3812, 4810 Elective Parks Courses: OUTD 3075, 3410, 3610, 3731, 3771, 3831, 4075, 4170, 4411, 4611, 4732, 4813</p> <p>Courses may not be double-counted to complete a second specialization. OUTD 3075 and 4075 must be retaken with a new project in the second specialization.</p> <p>(c) Specialization in Tourism</p> <p>Years 1 and 2 are the same as for the HBOR double-degree program.</p> <p>By the third year, students may select the tourism specialization which will be noted on their transcripts. Students must successfully complete five half courses from:</p> <p>Required Tourism Courses: OUTD 3731, 3733, 3771 Elective Tourism Courses: OUTD 3075, 3410, 3531, 3715, 4075, 4510, 4732, 4733, 4734, 4813, 4917</p> <p>Students in the Tourism Specialization are recommended to take as electives the Entrepreneur Certificate courses in the Faculty of Business Administration.</p> <p>Courses may not be double-counted to complete a second specialization. OUTD 3075 and 4075 must be retaken with a new project in the second specialization.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. Students should consult with the Department for the suggested sequence in which these courses should be taken over the four years. 2. The admission requirements and general regulations for the Honours Bachelor of Outdoor Recreation four-year program (see School of Outdoor Recreation and Tourism) also apply to candidates for the BA (Geography Major)/Honours Bachelor of Outdoor Recreation four-year program.
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION

Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

20.	New Version of a Degree	BSC.GEOG - BSc (Geography Major)
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BSC.GEOG - BSc (Geography Major) Start Term: F-W 2013-14 End Term: No Specified End Date	BSC.GEOG - BSc (Geography Major) Start Term: F-W 2013-14 Fall 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type BSC	Degree Type BSC
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale	Rationale <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Three Year program First Year: (a) Geography 1140 (b) One FCE from: Anthropology 1032; Biology 1110, 1130; Computer Science 1411, 1431; Geology 1111, 1131; Mathematics 1151 and 1152 (c) Two FCE electives in Science (Geography excluded) (d) One FCE elective	Requirements Three Year program First Year: (a) Geography 1140 (b) One FCE from: Anthropology 1032; Biology 1110, 1130; Computer Science 1411, 1431; Geology 1111, 1131; Mathematics 1151 and 1152 (c) Two FCE electives in Science (Geography excluded)

<p>Second Year: (a) Geography 2211, 2331, 2351, 2511 and 2811 (b) Two FCE electives in Science (Geography excluded) (c) One half-course elective</p> <p>Third Year: (a) Two FCEs in Geography at the third year level (b) Two FCE electives in Science (c) One FCE elective</p>	<p>(d) One FCE elective</p> <p>Second Year: (a) Geography 22142XXX, 2331, 2351, 2511 and 2811 (b) Two FCE electives in Science (Geography excluded) (c) One half-course elective</p> <p>Third Year: (a) Two FCEs in Geography at the third year level (b) Two FCE electives in Science (c) One FCE elective</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

21.	New Version of a Degree	HBSC.GEOG.GEOL - Honours BSc (Geography with Geology Minor)
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Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSC.GEOG.GEOL - Honours BSc (Geography with Geology Minor) Start Term: F-W 2013-14 End Term: No Specified End Date	HBSC.GEOG.GEOL - Honours BSc (Geography with Geology Minor) Start Term: F-W 2013-14 Fall 2014 End Term: No Specified End Date

<u>Required Information</u>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type HBSC	Degree Type HBSC
Major GGGL	Major GGGL
Minor	Minor
Specialization	Specialization
Rationale	Rationale <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Four Year program First Year: (a) Geography 1140 (b) Geology 1111, 1131 (c) Mathematics 1151 and 1152 (d) Two FCE electives in Science (Geography excluded)	Requirements Four Year program First Year: (a) Geography 1140 (b) Geology 1111, 1131 (c) Mathematics 1151 and 1152 (d) Two FCE electives in Science (Geography excluded)

<p>Second Year: (a) Geography 2211, 2251, 2271, 2331 and 2351 (b) Geology 2214, 2215, 2217 and 2310 (c) One half-course elective in Science</p> <p>Third Year: At the beginning of the third year and at the beginning of the fourth year students must consult with the Department of Geology before registering in Geology courses. (a) Two FCEs in Geography at the third year level (b) Geology 3410 (permission of the Department) (c) One and a half FCEs in Geology at the third year level (d) One FCE Science elective</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) One FCE in Geology (c) One FCE elective in Science</p> <p>Notes: (a) A required or elective course may consist of one full course (third digit even) or two half courses (third digit odd). (b) Elective courses may be chosen from any degree program in the University, provided the prerequisites are met. Students are strongly encouraged to consult with the Department of Geography concerning the most useful electives for their program. In particular, those students with an interest in physical geography are encouraged to include the following electives in their program: Geology 1110, 1130, 2214, 2310 and 3410; Biology 1110, 1130 and 2210.</p>	<p>Second Year: (a) Geography 22112XXX, 2251, 2271, 2331 and 2351</p> <p>(b) Geology 2214, 2215, 2217 and 2310 (c) One half-course elective in Science</p> <p>Third Year: At the beginning of the third year and at the beginning of the fourth year students must consult with the Department of Geology before registering in Geology courses. (a) Two FCEs in Geography at the third year level (b) Geology 3410 (permission of the Department) (c) One and a half FCEs in Geology at the third year level (d) One FCE Science elective</p> <p>Fourth Year: (a) Three FCEs in Geography at the fourth year level (b) One FCE in Geology (c) One FCE elective in Science</p> <p>Notes: (a) A required or elective course may consist of one full course (third digit even) or two half courses (third digit odd). (b) Elective courses may be chosen from any degree program in the University, provided the prerequisites are met. Students are strongly encouraged to consult with the Department of Geography concerning the most useful electives for their program. In particular, those students with an interest in physical geography are encouraged to include the following electives in their program: Geology 1110, 1130, 2214, 2310 and 3410; Biology 1110, 1130 and 2210.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>

<p>Teaching Loads</p>	<p>Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i></p>
<p>TeachingSupport Services</p>	<p>TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
<p>Outside Support</p>	<p>Outside Support <i>None</i></p>

22.	New Version of a Degree	BABED.GEOG.JI - BA, BEd (Geography Major) J/I
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BABED.GEOG.JI - BA, BEd (Geography Major) J/I Start Term: Fall 2013 End Term: No Specified End Date	BABED.GEOG.JI - BA, BEd (Geography Major) J/I Start Term: Fall 2013 2014 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 BABED	Degree Type BABED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BABEd.GEOG.JI.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BABEDGEOG.JI.	Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BABEd.GEOG.JI.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 0451, 4119) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BABEDGEOG.JI. <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Four Year program A cumulative average of 65% in all courses is	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.

Students must choose a teachable subject. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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) History 1100
- (d) One FCE elective from: Anthropology, Philosophy, Psychology, Sociology
- (e) One FCE elective in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)

Second Year:

- (a) Two FCEs from: Geography 2211, 2331, 2351, 2511 and 2811
- (b) One FCE in History at the second year level
- (c) One FCE in English (first year excluded)
- (d) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE selected from Geography 3611, 3631, 3651, 3671, 3691, 3693
 - (b) One FCE in Geography at the third year level
 - (c) One half-course in Music or Visual Arts
 - (d) One half-course elective (The remaining Geography half-course from Second Year recommended)
 - (e) One FCE elective
 - (f) Education 2011 (0.5 FCE)
 - (g) 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Junior-Intermediate Education:
 - (i) Education 4112 and 4151 (0.5 FCE x 2 = 1 FCE) and Education 0451 (mandatory non-credit course)
 - (ii) Education 4113, 4114, 4115, 4116, 4117, 4118, 4119 (.25 FCE x 7 = 1.75 FCEs)

required. See Department of Undergraduate Studies in Education, Academic Regulation #2, regarding the average in the major.

Students must choose a teachable subject. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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) History 1100
- (d) One FCE elective from: Anthropology, Philosophy, Psychology, Sociology
- (e) One FCE elective in Science (General Science 1000 recommended) (see Concurrent Bachelor of Education, Concurrent Content Regulations #1, regarding eligible Science courses)

Second Year:

- (a) Two FCEs from: Geography ~~2211~~2XXX, 2331, 2351, 2511 and 2811
- (b) One FCE in History at the second year level
- (c) One FCE in English (first year excluded)
- (d) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE selected from Geography 3611, 3631, 3651, 3671, 3691, 3693
 - (b) One FCE in Geography at the third year level
 - (c) One half-course in Music or Visual Arts
 - (d) One half-course elective (The remaining Geography half-course from Second Year recommended)
 - (e) One FCE elective
 - (f) Education 2011 (0.5 FCE)
 - (g) 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Junior-Intermediate Education:
 - (i) Education 4112 and 4151 (0.5 FCE x 2 = 1 FCE) and Education 0451 (mandatory non-credit course)
 - (ii) Education 4113, 4114, 4115, 4116, 4117, 4118,

<p>(iii) One Curriculum and Instruction course (.25 FCE) in teaching field selected from: Education 4212, 4216, 4215, 4231, 4214, 4217, 4218, 4232, 4233, 4234, 4235, 4239</p> <p>(iv) One Education .25 FCE elective (see Electives in the Department of Undergraduate Studies in Education Courses list)*</p> <p>(c) Student Teaching:</p> <p>(i) Education 4499 (0.5 FCE)</p> <p>*Education 3239 and 3259 may be taken for credit more than once if the topics are different.</p>	<p>4119 (.25 FCE x 7 = 1.75 FCEs)</p> <p>(iii) One Curriculum and Instruction course (.25 FCE) in teaching field selected from: Education 4212, 4216, 4215, 4231, 4214, 4217, 4218, 4232, 4233, 4234, 4235, 4239</p> <p>(iv) One Education .25 FCE elective (see Electives in the Department of Undergraduate Studies in Education Courses list)*</p> <p>(c) Student Teaching:</p> <p>(i) Education 4499 (0.5 FCE)</p> <p>*Education 3239 and 3259 may be taken for credit more than once if the topics are different.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	<p>Student Enrolment</p> <p><i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i></p>
Student Enrolment Other Units	<p>Student Enrolment Other Units</p> <p><i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i></p>
Additional Resources	<p>Additional Resources</p> <p><i>None</i></p>
Teaching Loads	<p>Teaching Loads</p> <p><i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i></p>
TeachingSupport Services	<p>TeachingSupport Services</p> <p><i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i></p>
Outside Support	<p>Outside Support</p> <p><i>None</i></p>

23.	New Version of a Degree	BABED.GEOG.IS - BA, BEd (Geography Major) I/S
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Degree Details

CURRENT VERSION	PROPOSED VERSION
BABED.GEOG.IS - BA, BEd (Geography Major) I/S Start Term: Fall 2013 End Term: No Specified End Date	BABED.GEOG.IS - BA, BEd (Geography Major) I/S Start Term: Fall 2013 2014 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 BABED	Degree Type BABED
Major GEOG	Major GEOG
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BABEd.GEOG.IS.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BABED.GEOG.IS.	Rationale #2012-SCI-296 (replace GEOG 1120 with GEOG 1140) (referred at 18Jan2013 Senate and approved at 25Apr2013 Senate meeting). Associated program change for BABEd.GEOG.IS.Also,#2012-EDU-350 (Professional Year changes – EDUC 4470, 4490, 4414, 4273) (referred at 18Jan2013 Senate and approved at 14May2013 Senate meeting). Associated program change for BABED.GEOG.IS. <i>Many of our Geography degree programs require the existing course (Geography 3251) at the third year of the program. With moving it to second year of these same programs, thereby replacing Geography 2211 at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more general requirement that students choose one half-course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing.</i>
Requirements Four Year program A cumulative average of 65% in all courses is	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.

Students must choose two teachable subjects. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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: Anthropology, Philosophy, Psychology, Sociology
- (d) History 1100
- (e) One FCE elective in second teaching field (See Department of Undergraduate Studies in Education, Levels and Teachables.)

Second Year:

- (a) One FCE from: Geography 2211, 2331, 2351, 2511 and 2811
- (b) One FCE in History at the second year level
- (c) One FCE elective in second teaching field
- (d) One FCE in English (first year excluded)
- (e) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 2211, 2331, 2351, 2511 and 2811
- (b) One FCE selected from Geography 3611, 3631, 3651, 3671, 3691, 3693
- (c) One FCE in Geography at the third year level
- (d) One FCE elective in second teaching field
- (e) Four Education electives (Education 2011 (0.5 FCE) recommended) (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 4 = 1 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Intermediate-Senior Education:
 - (i) Education 4213 or, if teachable is English, one of the Education electives listed in (iii) (.25 FCE)
 - (ii) Two Curriculum and Instruction courses in Teachable 1 and Teachable 2 selected from: Education 4241, 4242, 4244, 4245, 4260, 4261, 4262, 4263, 4265, 4280, 4281, 4283, 4284, 4288 (1

required. See Department of Undergraduate Studies in Education, Academic Regulation #2 regarding the average in the major.

Students must choose two teachable subjects. See Department of Undergraduate Studies in Education, Levels and Teachables.

First Year:

- (a) Geography 1140
- (b) A minimum of 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: Anthropology, Philosophy, Psychology, Sociology
- (d) History 1100
- (e) One FCE elective in second teaching field (See Department of Undergraduate Studies in Education, Levels and Teachables.)

Second Year:

- (a) One FCE from: Geography ~~2211~~2XXX, 2331, 2351, 2511 and 2811
- (b) One FCE in History at the second year level
- (c) One FCE elective in second teaching field
- (d) One FCE in English (first year excluded)
- (e) Education 1499 and 2399 (0.5 FCE x 2 = 1 FCE)

Third Year:

- (a) One FCE from: Geography 2211, 2331, 2351, 2511 and 2811
- (b) One FCE selected from Geography 3611, 3631, 3651, 3671, 3691, 3693
- (c) One FCE in Geography at the third year level
- (d) One FCE elective in second teaching field
- (e) Four Education electives (Education 2011 (0.5 FCE) recommended) (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 4 = 1 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 3 = .75 FCE)
- (b) Curriculum and Instruction in Intermediate-Senior Education:
 - (i) Education 4213 or, if teachable is English, one of the Education electives listed in (iii) (.25 FCE)
 - (ii) Two Curriculum and Instruction courses in Teachable 1 and Teachable 2 selected from: Education 4241, 4242, 4244, 4245, 4260, 4261,

<p>FCE x 2 - 2 FCEs) (iii) Two Education .25 FCE electives (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 2 = 0.5 FCE) (iv) Education 4271, 4273 (.25 FCE x 2 = 0.5 FCE) (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.</p>	<p>4262, 4263, 4265, 4280, 4281, 4283, 4284, 4288 (1 FCE x 2 - 2 FCEs) (iii) Two Education .25 FCE electives (see Electives in the Department of Undergraduate Studies in Education Courses list)* (.25 FCE x 2 = 0.5 FCE) (iv) Education 4271, 4273 (.25 FCE x 2 = 0.5 FCE) (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.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>The proposed changes to the Certificate Program in Geomatics are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see some increase in enrollment in other programs if students elect to take their concurrently with the Certificate Program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>This program change has a subtle effect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks & Tourism and in the Faculty of Education.</i>
Additional Resources	Additional Resources <i>None</i>
Teaching Loads	Teaching Loads <i>The proposed change to the program has no need for additional faculty. Removing Geography 2211 as a required course in combination with the move of Geography 3251 to 2XXX frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.</i>
TeachingSupport Services	TeachingSupport Services <i>The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15 should offset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat lessen loads on our Technical Staff and GA allocations.</i>
Outside Support	Outside Support <i>None</i>

24.	New Version of a Course	Geography 3253 - Cartography
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Course Details

CURRENT VERSION	PROPOSED VERSION
Geography 3253 - Cartography Start Term: F-W 2013-14 End Term: No Specified End Date	Geography 3253 - Cartography Start Term: F-W 2013-14 Fall 2014 End Term: No Specified End Date

<u>Course Details</u>	
CURRENT VERSION	PROPOSED VERSION
Code Geography 3253	Code Geography 3253
Title Cartography	Title Cartography
Description A rigorous introduction to the history, theory and techniques of cartography, with a particular focus on computer cartography. Successful students will produce several professional-quality maps during the course.	Description A rigorous introduction to the history, theory and techniques of cartography, with a particular focus on computer cartography. Successful students will produce several professional-quality maps during the course.
End Term No Specified End Date	End Term No Specified End Date
Institution Lakehead University	Institution Lakehead University
Faculty Faculty of Science and Environmental Studies	Faculty Faculty of Science and Environmental Studies
CreditWeight 0.5	CreditWeight 0.5
Rationale The prerequisite of Geography 2251 (Inquiry & Interpretation) appears to be a relic in the Calendar, left over from the time of the double cohort when the Department had limited teaching and resource capacity to service a large number of majors. In the post-cohort years, the Department has systemically removed these kinds of registration barriers. The Department offers the Certificate in Mapping Sciences of which the course in question (GEOG 3253: Cartography) is a required course. We have opened up this Certificate to non-Geography majors and removing this prerequisite will make registration easier for students. The restrictive note, limiting this course to third and fourth year students of an Honours program is also related to the double cohort period and was a means to control enrolment.	Rationale The prerequisite of Geography 2251 (Inquiry & Interpretation) appears to be a relic in the Calendar, left over from the time of the double cohort when the Department had limited teaching and resource capacity to service a large number of majors. In the post-cohort years, the Department has systemically removed these kinds of registration barriers. The Department offers the Certificate in Mapping Sciences of which the course in question (GEOG 3253: Cartography) is a required course. We have opened up this Certificate to non-Geography majors and removing this prerequisite will make registration easier for students. The restrictive note, limiting this course to third and fourth year students of an Honours program is also related to the double cohort period and was a means to control enrolment.

Removing this note for GEOG 3253 and adjusting the prerequisites puts this Calendar entry in line with our other offerings in the Certificate in Mapping Sciences. The changes will certainly increase the accessibility of the course and thus, we anticipate enrolment to increase. We foresee no budgetary implications for this change, as the course has been offered (lecture and two laboratory sections) for several years – we do not anticipate the enrolment growing beyond this capacity (circa 60 to 80 students).	Removing this note for GEOG 3253 and adjusting the prerequisites puts this Calendar entry in line with our other offerings in the Certificate in Mapping Sciences. The changes will certainly increase the accessibility of the course and thus, we anticipate enrolment to increase. We foresee no budgetary implications for this change, as the course has been offered (lecture and two laboratory sections) for several years – we do not anticipate the enrolment growing beyond this capacity (circa 60 to 80 students). <i>Some changes to the prerequisites are necessary because of the proposed move of Geography 3251 to Geography 2XXX. This course includes a computer cartography course that, like other geomatics laboratory courses, is in strong need of a software update.</i>
Requiredor Elective Required	Requiredor Elective Required
Cross List	Cross List
Offering 3-2; or 3-2	Offering 3-2; or 3-2
Prerequisites Geography 2211 and 2271, or permission of the instructor and Chair of the Department	Prerequisites Geography 2211 2XXX and 2271, or permission of the instructor and Chair of the Department
Corequisites	Corequisites
Notes	Notes <i>An additional fee (see Miscellaneous Fees) is required for this course.</i>
SpecialTopicDropdown	SpecialTopicDropdown
GradeSchemePF	GradeSchemePF
EffectonEnrolmentINIT Removal of this restrictive note and the Geography 2251 prerequisite will allow non-Geography majors to register more easily and will likely lead to a small increase in enrollments. This is the last such restrictive note limiting access to the courses which constitute those required in the Certificate Program in Mapping Sciences offered by the Department.	Removal of this restrictive note and the Geography 2251 prerequisite will allow non-Geography majors to register more easily and will likely lead to a small increase in enrollments. This is the last such restrictive note limiting access to the courses which constitute those required in the Certificate Program in Mapping Sciences offered by the Department <i>No changes anticipated based on the proposed changes to this course, however these changes are being done in the context of an overall strengthening of the Certificate Program in Geomatics that will hopefully increase its marketability to prospective students.</i>
EffectonEnrolmentOTHER No change to enrollment in other units.	EffectonEnrolmentOTHER No change to enrollment in other units <i>changes anticipated based on the proposed changes to this course.</i>
AdditionalTeachingSpace No change to the resources already in place for this course.	AdditionalTeachingSpace No change to the resources already in place for this <i>(Budgetary Implications): New software is currently being evaluated by the course instructor and</i>

	<p><i>Technical Staff for the best choice for Geogrpahy 3253 including several potential choices (e.g. Adobe Illustrator, ProFantasy). Currently and for many years, the course instructor has survived offering computer cartographic components of the course with very limited image processing software. With the interest to strength the overall Certificate Program to use as current as software as feasible, we feel a software update is absolutely essential. These software options under consideration, like the PCI Geomatica (discussed elsewhere for Geography 2XXX and 4231) have both initial purchase as well as an ongoing software maintenance costs for a 25-seat computer lab. TSC was approached about supporting (ie, cover these costs) for this cartography software, but is not in a position to do so. Alternatively, we have sought support from the Dean of Science and Environmental Studies, to assist with the purchase cost and are proposing a laboratory fee to (in part) recoup some of the annual maintenance costs needed to maintain a current licensed version of the software. In addition, a financial contribution will be made from the Department of Geography's Geospatial Data Centre (likely on the order of \$250) towards the purchase cost. We are proposing a laboratory fee (to be determined once a software package is selected) be applied to Geography 3253 to cover the annual consumption of software, based on typical class enrollments of 20 to 30 students. A laboratory fee for this and related geomatics lab courses in Geography is similar to what already exists for other units in the Faculty of Science. This lab fees are for items "consumed" during a course. The fee will be applied to the annual software maintenance costs only, as this software in reality is consumed by that student group during the year they take the course.</i></p>
<p>EffectonTeachingLoads No change to the teaching assignment for this course.</p>	<p>EffectonTeachingLoads No change to the teaching assignment for this coursePart of load of an existing faculty member.</p>
<p>EffectonServices No change in the support services for this course.</p>	<p>EffectonServices No change in the support services for this course.With sufficient GA resources, the Department has allotted a GA to our laboratory courses, including this one. However, in 'lean' GA years, the instructor has led his own laboratory component.</p>
<p>DirectinkindSupport No change in the outside support for this course.</p>	<p>DirectinkindSupport No change in the outside support for this course.None</p>

25.	New Version of a Course	Geography 4211 - Advanced GIS and Spatial Analysis
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Course Details

CURRENT VERSION	PROPOSED VERSION
Geography 4211 - Advanced GIS and Spatial Analysis Start Term: Fall 2012 End Term: No Specified End Date	Geography 4211 - Advanced GIS and Spatial Analysis Start Term: Fall 2012 2014 End Term: No Specified End Date

<u>Course Details</u>	
CURRENT VERSION	PROPOSED VERSION
Code Geography 4211	Code Geography 4211
Title Advanced GIS and Spatial Analysis	Title Advanced GIS and Spatial Analysis
Description An advanced course in the applications of geographic information systems, spatial analysis, and the display of spatial data. Practical exercises will provide hands-on experience using GIS software.	Description An advanced course in the applications of geographic information systems, spatial analysis, and the display of spatial data. Practical exercises will provide hands-on experience using GIS software. <i>Specific applications covered depend upon the expertise of the instructor.</i>
End Term No Specified End Date	End Term No Specified End Date
Institution Lakehead University	Institution Lakehead University
Faculty Faculty of Science and Environmental Studies	Faculty Faculty of Science and Environmental Studies
CreditWeight 0.5	CreditWeight 0.5
Rationale	Rationale <i>An adjustment is proposed to the prerequisite, because of the proposed move of Geography 3251 to Geography 2XXX, and add additional to the course description to explicitly state what is standard practice when application courses such as this are rotated from instructor to another, or taught on both campuses.</i>
Requiredor Elective	Requiredor Elective
Cross List	Cross List
Offering	Offering

2-2; or 2-2	2-2; or 2-2
Prerequisites Geography 2271 and 3251; or permission of the instructor	Prerequisites Geography 2271 and 3251 2XXX; or permission of the instructor
Corequisites	Corequisites
Notes	Notes
SpecialTopicDropdown	SpecialTopicDropdown
GradeSchemePF	GradeSchemePF
EffectonEnrolmentINIT	EffectonEnrolmentINIT <i>No changes anticipated based on the proposed changes to this course, however these changes are being done in the context of an overall strengthening of the Certificate Program in Geomatics that will hopefully increase its marketability to prospective students.</i>
EffectonEnrolmentOTHER	EffectonEnrolmentOTHER <i>No changes anticipated based on the proposed changes to this course.</i>
AdditionalTeachingSpace	AdditionalTeachingSpace <i>None are required based on the proposed changes to this course.</i>
EffectonTeachingLoads	EffectonTeachingLoads <i>Part of load of an existing faculty member.</i>
EffectonServices	EffectonServices <i>The instructor teaches his own laboratory section, thus no additional resources required.</i>
DirectinkindSupport	DirectinkindSupport <i>None.</i>

26.	New Course	Geography 2XXX - Geographic Information Systems
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Course Details

Geography 2XXX - Geographic Information Systems Start Term: Fall 2014 End Term: No Specified End Date

<u>Course Details</u>
Code Geography 2XXX
Title Geographic Information Systems
Description An introduction to the fundamental principles and techniques that comprise the field of 'geomatics', especially Geographic Information Systems (GIS). Topics include the collection and visualization of geographical data through various means, database construction and manipulation, and exposure to analog and digital spatial technologies, such as GPS, surveying and digital aerial photography.
End Term No Specified End Date
Institution Lakehead University
Faculty Faculty of Science and Environmental Studies
CreditWeight 0.5
Rationale The Department feels that moving the Introduction to GIS as well as other keys aspects of an introduction to geomatics is best done at the second year level, so that upper year courses can benefit from this broad introduction to geographical data products, database construction and manipulation. A second year GIS course is common in most Geography Departments across Canada.
Requiredor Elective
Cross List
Offering 2-3; or 2-3
Prerequisites Geography 1120 or 1140 or permission of the instructor
Corequisites

Notes
SpecialTopicDropdown
GradeSchemePF
<p>EffectonEnrolmentINIT</p> <p>This course will increase in enrolment as it is moving to a required course in the second year of nearly all Geography programs. We expect a normal enrolment to be approximately 50 students, requiring two laboratory sections, similar to the current version of this course (ie Geography 3251). For 2014-15, there will be a 'double-cohort' of students (those students currently in first and second years required to take this course), thus we anticipate an enrollment of 75+ for 2014-15. In addition, we are hoping that an overall strengthening of the Certificate Program will increase its marketability to prospective students.</p>
<p>EffectonEnrolmentOTHER</p> <p>No anticipated impact on enrolment in other departments.</p>
<p>AdditionalTeachingSpace</p> <p>Part of this course will involve a limited introduction (1 or 2 laboratory periods) to the use of updated remote sensing software (PCI Geomatica) being purchased for the Geography 4231 course (see related Calendar change proposal below). This software has an annual maintenance fee required that will necessitate a small to modest laboratory fee attached to this course, so that the annual software maintenance updates can be made. We are proposing a laboratory fee of approximately 15\$ per student be applied to Geography 2XXX. A laboratory fee for this and related geomatics lab courses in Geography is similar to what already exists for other units in the Faculty of Science. This lab fees are for items "consumed" during a course. The fee will be applied to the annual software maintenance costs only, as this software in reality is consumed by that student group during the year they take the course.</p>
<p>EffectonTeachingLoads</p> <p>There is a faculty member already teaching the GIS course and he will be assigned this new course to his teaching load.</p>
<p>EffectonServices</p> <p>We will allot support from one GA and one Technical Staff to this course, as has been the habit over the past several years, for both computer-laboratory work as well as the data collection in the field. This has worked well for 2 laboratory sections historically. For 2014-15, we anticipate at least 1 (and maybe 2) additional laboratory sections due to the 'double-cohort' mentioned above, that may be offset as we are not offering Geography 2211 for 2014-15. If necessary, the course instructor may assist with extra lab sessions unless other support is available from our Dean or from additional GA resources.</p>
<p>DirectinkindSupport</p> <p>None</p>

27.	New Version of a Course	Geography 4231 - Remote Sensing
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Course Details

CURRENT VERSION	PROPOSED VERSION
Geography 4231 - Remote Sensing Start Term: Fall 2012 End Term: No Specified End Date	Geography 4231 - Remote Sensing Start Term: Fall 2012 2014 End Term: No Specified End Date

<u>Course Details</u>	
CURRENT VERSION	PROPOSED VERSION
Code Geography 4231	Code Geography 4231
Title Remote Sensing	Title Remote Sensing
Description An introduction to remote sensing, including digital image acquisition, geometric and atmospheric correction, and information extraction techniques. Hands-on experience of digital image processing with computer software will be provided.	Description An introduction to remote sensing, including digital image acquisition, geometric and atmospheric correction, and information extraction techniques. Hands-on experience of digital image processing with computer software will be provided.
End Term No Specified End Date	End Term No Specified End Date
Institution Lakehead University	Institution Lakehead University
Faculty Faculty of Science and Environmental Studies	Faculty Faculty of Science and Environmental Studies
CreditWeight 0.5	CreditWeight 0.5
Rationale	Rationale <i>An adjustment is proposed to the prerequisite, because of the proposed move of Geography 3251 to Geography 2XXX. This course is our Department's key course in Remote Sensing and has been using the PCI Geomatica software since the arrival of its instructor in 2000.</i>
Requiredor Elective	Requiredor Elective
Cross List	Cross List
Offering 2-2; or 2-2	Offering 2-2; or 2-2

Prerequisites Geography 2271 and 3251; or permission of the instructor	Prerequisites Geography 2271 and 3251 2XXX; or permission of the instructor
Corequisites	Corequisites
Notes	Notes <i>An additional fee (see Miscellaneous Fees) is required for this course.</i>
SpecialTopicDropdown	SpecialTopicDropdown
GradeSchemePF	GradeSchemePF
EffectonEnrolmentINIT	EffectonEnrolmentINIT <i>No changes anticipated based on the proposed changes to this course, however these changes are being done in the context of an overall strengthening of the Certificate Program in Geomatics that will hopefully increase its marketability to prospective students.</i>
EffectonEnrolmentOTHER	EffectonEnrolmentOTHER <i>No changes anticipated based on the proposed changes to this course.</i>
AdditionalTeachingSpace	AdditionalTeachingSpace <i>The ATAC classroom used for this course is undergoing an extensive hardware upgrade in spring/summer 2014 (as the computers in the room are in bad need of replacement). The upside is for students in this and other courses who will benefit from new computers and an operating system. The downside is the need to update the PCI Geomatica software to the 2013 version, as the version currently in use will no longer be run on the new operating system. The software has both an initial purchase cost as well as an annual maintenance cost that we are proposing for a 10-seat roving license (\$6500 purchase cost with approximately \$2000 to \$3250 annual maintenance cost). TSC was approached about supporting (ie, cover these costs) for this remote sensing and image software, but is not in a position to do so. Alternatively, we have sought support from the Dean of Science and Environmental Studies, to assist with the purchase cost and are proposing a laboratory fee to (in part) recoup some of the annual maintenance costs needed to maintain a current licensed version of the software. In addition, a financial contribution will be made from the Department of Geography's Geospatial Data Centre (likely on the order of \$1000) towards the purchase cost. We are proposing a laboratory fee of approximately 75\$ per student be applied to Geography 4231 to cover the annual consumption of software, based on typical class enrollments of 20 students. Other means to cover the annual software maintenance fees will be proposed to the Dean including the offering of spring/summer modular (condensed) remote sensing courses to members of the local community and professionals. A laboratory fee for this and related geomatics lab courses in Geography is similar to what already exists for other units in the Faculty of Science. This lab fees are for items "consumed" during a course. The fee will be</i>

	<i>applied to the annual software maintenance costs only, as this software in reality is consumed by that</i>
EffectonTeachingLoads	EffectonTeachingLoads <i>Part of load of an existing faculty member.</i>
EffectonServices	EffectonServices <i>The instructor teaches his own laboratory section, thus no additional resources required.</i>
DirectinkindSupport	DirectinkindSupport <i>See note 4) about the potential to develop a modular (or condensed) version of this course to help assist offsetting the annual software licensing fees.</i>