



Lakehead University
Faculty of Science and Environmental Studies

REQUEST REPORT

Request Tracking Number: 2014-SCI-3073
Request Title: Water Resource Science Changes to reflect change in Geography (2XXX)

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

Request Contents

Type		Title
1.	New Version of a Degree	BSc (Water Resource Science Major) 4 Yr
2.	New Version of a Degree	BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management 4 Yr
3.	New Version of a Degree	Honours BSc (Water Resource Science Major)
4.	New Version of a Degree	Honours BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management

Request History

Workflow Step	Workflow Action	User	Change Made	Comments	Date
Initiator	Approved	Amanda Diochon	Yes	Submitted to workflow	01/30/2014
Dean and Faculty Council Review Stage	Approved	Christina Maenpaa	No	Approved through electronic vote by the SES Faculty on January 23, 2014. Approved by A.P. Dean	01/30/2014

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	BSC4.WATE - BSc (Water Resource Science Major) 4 Yr
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Justification
Proposed changes reflect a change in the Geography Department course offerings where 2XXX will replace 2211 and 3251. Both 2211 and 3251 are listed in the WRS program.

Degree Details

CURRENT VERSION	PROPOSED VERSION
BSC4.WATE - BSc (Water Resource Science Major) 4 Yr Start Term: Fall 2002 End Term: No Specified End Date	BSC4.WATE - BSc (Water Resource Science Major) 4 Yr Start Term: Fall 2002 2014 End Term: No Specified End Date

<i>Required Information</i>	
CURRENT VERSION	PROPOSED VERSION
Institution Unit Faculty of Science and Environmental Studies	Institution Unit Faculty of Science and Environmental Studies
Degree Type BSC4	Degree Type BSC4
Major WATE	Major WATE
Minor	Minor
Specialization	Specialization
Rationale	Rationale <i>Geography is changing their course offerings, which affects the Water Resource Science program. They are no longer offering GEOG 2211 and 3215 and are instead introducing a new course GEOG 2XXX in its place. I am requesting that the Water Resource Science program reflects these changes.</i>
Requirements Four Year Non-Direct Entry program The program requirements are the same as for the HBSc (Water Resource Science Major) program except one FCE elective is taken instead of the Honours Thesis (Water Resource Science 4101), as indicated below and in order to remain in the program, students must maintain at least an overall C average in all Biology, Geography, Geology and Water Resource Science courses. Fourth Year:	Requirements Four Year Non-Direct Entry program The program requirements are the same as for the HBSc (Water Resource Science Major) program except one FCE elective is taken instead of the Honours Thesis (Water Resource Science 4101), as indicated below and in order to remain in the program, students must maintain at least an overall C average in all Biology, Geography, Geology and Water Resource Science courses. Fourth Year:

<p>(a) One FCE selected from: Biology 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710</p> <p>(b) One FCE selected from: Geography 2211, 2251, 2351, 3251, 3311, 3313, 3317, 3411, 3471, 4211, 4333, 4411, 4431, 4451</p> <p>(c) Geology 4011 and 4137</p> <p>(d) Water Resource Science 4630</p> <p>(e) One and one-half FCE electives</p>	<p>(a) One FCE selected from: Biology 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710</p> <p>(b) One FCE selected from: Geography 22112XXX, 2251, 2351, 3251, 3311, 3313, 3317, 3411, 3471, 4211, 4333, 4411, 4431, 4451</p> <p>(c) Geology 4011 and 4137</p> <p>(d) Water Resource Science 4630</p> <p>(e) One and one-half FCE electives</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>No. GEOG 2XXX is replacing GEOG 2211 and 3251, which students already enroll in as part of their program.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>No. GEOG 2XXX is replacing GEOG 2211 and 3251, which students already enroll in as part of their program.</i>
Additional Resources	Additional Resources <i>No. GEOG 2XXX is replacing GEOG 2211 and 3251, which students already enroll in as part of their program.</i>
Teaching Loads	Teaching Loads <i>No. GEOG 2XXX is replacing GEOG 2211 and 3251, which students already enroll in as part of their program.</i>
TeachingSupport Services	TeachingSupport Services <i>No. GEOG 2XXX is replacing GEOG 2211 and 3251, which students already enroll in as part of their program.</i>
Outside Support	Outside Support <i>No. GEOG 2XXX is replacing GEOG 2211 and 3251, which students already enroll in as part of their program.</i>

2.	New Version of a Degree	BSC4.WATE.WM - BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management 4 Yr
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Justification

Proposed changes reflect a change in the Geography Department course offerings where 2XXX will replace 2211 and 3251. Both 2211 and 3251 are listed in the WRS program and 2211 is required in the first year.

Degree Details

CURRENT VERSION	PROPOSED VERSION
BSC4.WATE.WM - BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management 4 Yr Start Term: Fall 2013 End Term: No Specified End Date	BSC4.WATE.WM - BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management 4 Yr 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 BSC4	Degree Type BSC4
Major WATE	Major WATE
Minor	Minor
Specialization APWA	Specialization APWA
Rationale #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to BSC4.WATE.WM. Also Transition Plan includes changes regarding GEOL 3311, GEOG 2251 and 3411 in Fourth Years.	Rationale #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to BSC4.WATE.WM. Also Transition Plan includes changes regarding GEOL 3311, GEOG 2251 and 3411 in Fourth Years. <i>Geography is replacing GEOG 2211 and 3251 with GEOG 2211. GEOG 2211 is required in the first year of the applied specialization program for Water Resource Science. I am requesting that the changes in Geography are reflected in the Water Resource Science program.</i>
Requirements Four Year Non-Direct Entry program The program requirements are the same as for the HBSc (Water Resource Science Major) Specialization in Applied Environmental Water Management	Requirements Four Year Non-Direct Entry program The program requirements are the same as for the HBSc (Water Resource Science Major) Specialization in Applied Environmental Water Management

<p>program except one FCE elective is taken instead of the Honours Thesis (Water Resource Science 4101), as indicated below, and in order to remain in the program, students must maintain at least an overall C average in all Biology, Geography, Geology and Water Resource Science courses.</p> <p>Fourth Year: (a) Geology 4011 and 4137 (b) Geography 3411 and 4411 (c) Water Resource Science 4630 (d) One FCE selected from: Biology 2711, 3114, 3151, 3313, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710 (e) One half-course selected from: Geography 2211, 2351, 3251, 3311, 3313, 3317, 3471, 4211, 4333, 4431, 4451 (f) One FCE elective(s)</p> <p>Students who successfully complete a four-year BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management degree will still receive the Environmental Technician Diploma from Confederation College.</p>	<p>program except one FCE elective is taken instead of the Honours Thesis (Water Resource Science 4101), as indicated below, and in order to remain in the program, students must maintain at least an overall C average in all Biology, Geography, Geology and Water Resource Science courses.</p> <p>Fourth Year: (a) Geology 4011 and 4137 (b) Geography 3411 and 4411 (c) Water Resource Science 4630 (d) One FCE selected from: Biology 2711, 3114, 3151, 3313, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710 (e) One half-course selected from: Geography 2211, 2351, 3251, 3311, 3313, 3317, 3471, 4211, 4333, 4431, 4451 (f) One FCE elective(s)</p> <p>Students who successfully complete a four-year BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management degree will still receive the Environmental Technician Diploma from Confederation College.</p>
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Additional Resources	Additional Resources <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Teaching Loads	Teaching Loads <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
TeachingSupport Services	TeachingSupport Services <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Outside Support	Outside Support <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>

3.	New Version of a Degree	HBSC.WATE - Honours BSc (Water Resource Science Major)
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Justification
Proposed changes reflect a change in the Geography Department course offerings where 2XXX will replace 2211 and 3251. Both 2211 and 3251 are listed in the WRS program.

Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSC.WATE - Honours BSc (Water Resource Science Major) Start Term: Fall 2013 End Term: No Specified End Date	HBSC.WATE - Honours BSc (Water Resource Science Major) Start Term: Fall 2013 2014 End Term: No Specified End Date

<i>Required Information</i>	
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 WATE	Major WATE
Minor	Minor
Specialization	Specialization
Rationale #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBSC.WATE.	Rationale #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBSC.WATE. <i>Geography is planning to replace GEOG 2211 and 3251 with GEOG 2XXX. GEOG 2211 and 3251 are included in the courses that students can enroll in as part of their degree in Water Resource Science. I am requesting that the Water Resource program reflect these changes in Geography.</i>
Requirements Four Year program A student may enter, proceed in and graduate from the Honours BSc (HBSc) program in accordance with stipulations in the University Regulations section, and Faculty of Science and Environmental Studies Regulations section, of the Calendar. The overall average in all Biology, Geography, Geology and Water Resource Science courses must be at least 70%. By March 15 of their third year, students eligible	Requirements Four Year program A student may enter, proceed in and graduate from the Honours BSc (HBSc) program in accordance with stipulations in the University Regulations section, and Faculty of Science and Environmental Studies Regulations section, of the Calendar. The overall average in all Biology, Geography, Geology and Water Resource Science courses must be at least

to enter the fourth year of the HBSc program, and who intend to fulfil the thesis requirement in the next academic year must (a) have a faculty advisor, (b) have a topic approved by the advisor, and (c) submit a one page report, outlining the thesis proposal, to the program co-ordinator. All course choices in fourth year must be approved by the program co-ordinator.

First Year:

- (a) Biology 1110 and 1130
- (b) Chemistry 1110 and 1130
- (c) Geography 1120
- (d) Geology 1111 and 1131
- (e) One full course equivalent elective

Second Year:

- (a) Biology 2210 and one half-course selected from: Biology 2711, 3151, 3313, 3610
- (b) One FCE selected from: Geography 2211, 2251, 2351, 3411
- (c) Geology 2214 and 3311
- (d) Mathematics 2310 and 2311
- (e) One full course equivalent elective

Third Year:

- (a) One and one-half FCEs selected from: Biology 2711, 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435 or Applied Bio-Molecular Science 4710
- (b) Chemistry 2111
- (c) One FCE selected from: Geography 2211, 2251, 2351, 3251, 3311, 3313, 3317, 3411, 3471, 4211, 4333, 4431, 4451
- (d) Water Resource Science 3094
- (e) Geology 3130 and 3410
- (f) One half-course elective

Fourth Year:

- (a) One FCE selected from: Biology 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710
- (b) One FCE selected from: Geography 2211, 2251, 2351, 3251, 3311, 3313, 3317, 3411, 3471, 4211, 4333, 4411, 4431, 4451
- (c) Geology 4011 and 4137
- (d) Water Resource Science 4101 and 4630
- (e) One half-course elective

70%. By March 15 of their third year, students eligible to enter the fourth year of the HBSc program, and who intend to fulfil the thesis requirement in the next academic year must (a) have a faculty advisor, (b) have a topic approved by the advisor, and (c) submit a one page report, outlining the thesis proposal, to the program co-ordinator. All course choices in fourth year must be approved by the program co-ordinator.

First Year:

- (a) Biology 1110 and 1130
- (b) Chemistry 1110 and 1130
- (c) Geography 1120
- (d) Geology 1111 and 1131
- (e) One full course equivalent elective

Second Year:

- (a) Biology 2210 and one half-course selected from: Biology 2711, 3151, 3313, 3610
- (b) One FCE selected from: Geography ~~2211~~2XXX, 2251, 2351, 3411
- (c) Geology 2214 and 3311
- (d) Mathematics 2310 and 2311
- (e) One full course equivalent elective

Third Year:

- (a) One and one-half FCEs selected from: Biology 2711, 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435 or Applied Bio-Molecular Science 4710
- (b) Chemistry 2111
- (c) One FCE selected from: Geography ~~2211~~2XXX, 2251, 2351, ~~3251~~, 3311, 3313, 3317, 3411, 3471, 4211, 4333, 4431, 4451
- (d) Water Resource Science 3094
- (e) Geology 3130 and 3410
- (f) One half-course elective

Fourth Year:

- (a) One FCE selected from: Biology 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710
- (b) One FCE selected from: Geography ~~2211~~2XXX, 2251, 2351, ~~3251~~, 3311, 3313, 3317, 3411, 3471, 4211, 4333, 4411, 4431, 4451
- (c) Geology 4011 and 4137
- (d) Water Resource Science 4101 and 4630
- (e) One half-course elective

Budgetary Considerations

CURRENT VERSION

PROPOSED VERSION

Student Enrolment

Student Enrolment

No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.

Student Enrolment Other Units

Student Enrolment Other Units

No. GEOG 2XXX replaces GEOG 2211 and 3251,

	<i>which Water Resource Science students already take as part of their program of studies.</i>
Additional Resources	Additional Resources <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Teaching Loads	Teaching Loads <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
TeachingSupport Services	TeachingSupport Services <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Outside Support	Outside Support <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>

4.	New Version of a Degree	HBSC.WATE.WM - Honours BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management
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Justification

Proposed changes reflect a change in the Geography Department course offerings where 2XXX will replace 2211 and 3251. Both 2211 and 3251 are listed in the WRS program and 2211 is required in the first year.

Degree Details

CURRENT VERSION	PROPOSED VERSION
HBSC.WATE.WM - Honours BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management Start Term: Fall 2013 End Term: No Specified End Date	HBSC.WATE.WM - Honours BSc (Water Resource Science Major) Specialization in Applied Environmental Water Management 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 HBSC	Degree Type HBSC
Major WATE	Major WATE
Minor	Minor
Specialization APWA	Specialization APWA
Rationale #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBSC.WATE.WM. Also Transition Plan includes changes regarding GEOL 3311, GEOG 2251 and 3411 in Third and Fourth Years.	Rationale #2012-SCI-293 (add new WATE 3094) (referred 18Jan2013 and approved 25Apr2013). Associated program changes to HBSC.WATE.WM. Also Transition Plan includes changes regarding GEOL 3311, GEOG 2251 and 3411 in Third and Fourth Years. <i>Geography is planning to replace GEOG 2211 and 3251 with GEOG 2XXX. GEOG 2211 is required in the first year of the Water Resource Science with Applied Specialization and must reflect the changes to the course offerings in Geography.</i>
Requirements Four Year program Students must achieve a minimum 60% overall average in all courses at the end of their first year at the University and a minimum 70% average in all courses at the end of their second year at the	Requirements Four Year program Students must achieve a minimum 60% overall average in all courses at the end of their first year at the University and a minimum 70% average in all courses at the end of their second year at the

<p>College. To successfully complete the program the overall average in all Biology, Geography, Geology and Water Resource Science courses must be at least 70%.</p> <p>First Year:</p> <ul style="list-style-type: none"> (a) Biology 1110 and 1130 (b) Chemistry 1110 and 1130 (c) Natural Resources Management 1010 (d) Geography 1120 and 2211 (e) Geology 1111 and 1131 (f) Water Resource Science 1094 (a non-credit required course) <p>Second Year (Confederation College)</p> <p>Third Year:</p> <ul style="list-style-type: none"> (a) Biology 2110 and 2210 (b) Water Resource Science 3094 (c) Geography 2251 (d) Geology 2214 and 3410 (e) One FCE selected from: Biology 2711, 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, or Applied Bio-Molecular Science 4710 (f) One FCE selected from: Geography 2211, 2351, 3251, 3311, 3313, 3317, 3471, 4211, 4333, 4431, 4451 <p>Fourth Year:</p> <ul style="list-style-type: none"> (a) Geology 4011 and 4137 (b) Geography 3411 and 4411 (c) Water Resource Science 4101 and 4630 (d) One FCE selected from: Biology 2711, 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710 (e) One half-course selected from: Geography 2211, 2351, 3251, 3311, 3313, 3317, 3471, 4211, 4333, 4431, 4451 	<p>College. To successfully complete the program the overall average in all Biology, Geography, Geology and Water Resource Science courses must be at least 70%.</p> <p>First Year:</p> <ul style="list-style-type: none"> (a) Biology 1110 and 1130 (b) Chemistry 1110 and 1130 (c) Natural Resources Management 1010 (d) Geography 1120 and 22112XXX (e) Geology 1111 and 1131 (f) Water Resource Science 1094 (a non-credit required course) <p>Second Year (Confederation College)</p> <p>Third Year:</p> <ul style="list-style-type: none"> (a) Biology 2110 and 2210 (b) Water Resource Science 3094 (c) Geography 2251 (d) Geology 2214 and 3410 (e) One FCE selected from: Biology 2711, 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, or Applied Bio-Molecular Science 4710 (f) One FCE selected from: Geography 2211, 2351, 3251, 3311, 3313, 3317, 3471, 4211, 4333, 4431, 4451 <p>Fourth Year:</p> <ul style="list-style-type: none"> (a) Geology 4011 and 4137 (b) Geography 3411 and 4411 (c) Water Resource Science 4101 and 4630 (d) One FCE selected from: Biology 2711, 3114, 3151, 3313, 3610, 4113, 4115, 4212, 4213, 4217, 4430, 4431, 4435, 4710, 4711, or Applied Bio-Molecular Science 4710 (e) One half-course selected from: Geography 2211, 2351, 3251, 3311, 3313, 3317, 3471, 4211, 4333, 4431, 4451
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<u>Budgetary Considerations</u>	
CURRENT VERSION	PROPOSED VERSION
Student Enrolment	Student Enrolment <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Student Enrolment Other Units	Student Enrolment Other Units <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Additional Resources	Additional Resources <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Teaching Loads	Teaching Loads

	<i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
TeachingSupport Services	TeachingSupport Services <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>
Outside Support	Outside Support <i>No. GEOG 2XXX replaces GEOG 2211 and 3251, which Water Resource Science students already take as part of their program of studies.</i>