# Lakehead University Faculty of Science and Environmental Studies 

REQUEST REPORT

Request Tracking Number: 2014-SCI-4613
Request Title: 3rd/4th Year Geography Course Requirements
[DeAcTerm[EffectiveDate]] [DeAc[RequestEffectiveDate]]
Request Status: In Workflow
Request can be split

## Request Contents

| Type |  | Title |
| :--- | :--- | :--- |
| 1. | New Version of a Degree | BA (Geography Major) |
| 2. | New Version of a Degree | BSc (Geography Major) |
| 3. | New Version of a Degree | Honours BA (Geography Major) |
| 4. | New Version of a Degree | Honours BASc (Geography Major) |
| 5. | New Version of a Degree | Honours Bachelor of Environmental Studies (Geography Major) |
| 6. | New Version of a Degree | Honours Bachelor of Environmental Science (Geography Major) |
| 7. | New Version of a Degree | Honours BSc (Geography Major) |
| 8. | New Version of a Degree | Honours BSc (Geography with Geology Minor) |

## Request History

| Workflow Step | Workflow <br> Action | User | Change Made | Comments | Date |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Initiator | Approved | Jennifer McKee | Yes | Submitted to workflow | $12 / 12 / 2014$ |
| Submission Review <br> (Calendar Officer) | Approved | Margaret <br> Anderson <br> (Submission <br> Review) | No | Ready for workflow <br> submission. | 01/04/2015 |
| (Should also check |  |  |  |  |  |
| HBES.GEOG.TRF.) |  |  |  |  |  |$\quad$.

## Supporting Documents

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

## Supporting Documents Audit Trail

| File Name | User | Date | Action |
| :--- | :--- | :--- | :--- |

## Notes

| Date | User | Note |
| :--- | :--- | :--- |


| 1. | New Version of a Degree | BA.GEOG - BA (Geography Major) |
| :--- | :--- | :--- |

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| BA.GEOG - BA (Geography Major) | BA.GEOG - BA (Geography Major) |
| Start Term: F-W 2013-14 | Start Term: FW2013-142015-16 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :--- | :--- |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type <br> BA | Degree Type <br> BA |
| Major <br> GEOG | Major <br> GEOG |
| Minor | Minor |
| Specialization | Specialization <br> Rationale |
| Rationale <br> The changes will allow us to be more flexible with <br> course scheduling. We can maintain the same range <br> of courses offered as in the past, with a smaller <br> faculty complement - there will be no need to <br> sacrifice the quality of our programs as a result of <br> diminishing teaching resources. The changes will <br> also make scheduling that much more easy in Orillia <br> where the number of faculty are even lower than in <br> Thunder Bay. Furthermore, the changes proposed <br> are simply formalizing an existing practice of <br> permitting students to take 4th year courses earlier <br> but only with the permission of the Chair of the <br> department - with these changes we will be able to <br> cut down on the administrative paperwork for the <br> Registrar's office and the departmental Chairperson. |  |
| Requirements |  |
| (a) Geography 1140 |  |
| (b) One full course equivalent (FCE) from English |  |
| 1011, 1031, 111, 1112 |  |
| (c) One FCE elective from: Anthropology, Economics, |  |
| Gerontology, Political Science, Psychology, Social |  |
| Work, Sociology, Women's Studies 1100 or 3030 |  |$|$| Requirements |
| :--- |
| Three Year program |
| (c) One FCE elective from: Anthropology, Economics, |
| Gerontology, Political Science, Psychology, Social |
| (a) Geography 1140 full course equivalent (FCE) from English |

(d) Two FCE electives

Second Year:
(a) Geography 2331, 2351, 2511, 2811
(b) Three FCE electives

## Third Year:

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

Work, Sociology, Women's Studies 1100 or 3030
(d) Two FCE electives

Second Year:</strong>
(a) Geography 2331, 2351, 2511, 2811
(b) Three FCE electives

Third Year:</strong>
(a) Two FCEs in Geography at the third or fourth year level
(b) Three FCE electives

| Budgetary Considerations | PROPOSED VERSION |
| :--- | :--- |
| CURRENT VERSION | Student Enrolment <br> No, there will be no impact on student enrolment in <br> any other program. |
| Student EnroIment | Student EnroIment Other Units <br> No, there will be no impact on student enrolment in <br> any program. |
| Student EnroIment Other Units | Additional Resources <br> No, there will be no requirement for additional <br> resources of any kind. |
| Additional Resources | Teaching Loads <br> This will not affect existing teaching loads with the <br> department. |
| Teaching Loads | TeachingSupport Services <br> There will be no impact on the demand for teaching <br> services. |
| TeachingSupport Services | Outside Support <br> No outside support of any kind will be required. |
| Outside Support |  |


| 2. | New Version of a Degree | BSC.GEOG - BSc (Geography Major) |
| :--- | :--- | :--- |

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| BSC.GEOG - BSc (Geography Major) | BSC.GEOG - BSc (Geography Major) |
| Start Term: Fall 2014 | Start Term: Fall 20142015-16 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :---: | :---: |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type BSC | Degree Type BSC |
| Major GEOG | Major GEOG |
| Minor | Minor |
| Specialization | Specialization |
| Rationale <br> 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. | Rationale <br> 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 Goography courses and one Natural Resources Management course, with the recommendation that students in Geography programs who are also pursuing the-Certificate Program in Geomaties elect to take either Geography 3523 or Natural Resources Management 2270 from this listing The changes will allow us to be more flexible with course scheduling. We can maintain the same range of courses offered as in the past, with a smaller faculty complement - there will be no need to sacrifice the quality of our programs as a result of diminishing teaching resources. The changes will also make scheduling that much more easy in Orillia where the number of faculty are even lower than in Thunder Bay. Furthermore, the changes proposed are simply formalizing an existing practice of permitting students to take 4th year courses earlier but only with the permission of the Chair of the department - with these changes we will be able to cut down on the administrative paperwork for the Registrar's office and the departmental Chairperson. |

## 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

## Second Year:

(a) Geography 2232, 2331, 2351, 2511 and 2811
(b) Two FCE electives in Science (Geography excluded)
(c) One half-course elective

## Third Year:

(a) Two FCEs in Geography at the third year level
(b) Two FCE electives in Science
(c) 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)
(d) One FCE elective

## Second Year:

(a) Geography 2232, 2331, 2351, 2511 and 2811
(b) Two FCE electives in Science (Geography excluded)
(c) One half-course elective

Third Year:
(a) Two FCEs in Geography at the third or fourth year level
(b) Two FCE electives in Science
(c) One FCE elective

## Budgetary Considerations

## CURRENT VERSION

## Student Enrolment

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.

## Student Enrolment Other Units

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.

## Additional Resources <br> None

## Teaching Loads

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.

## PROPOSED VERSION

## Student Enrolment

The proposed changes to the Gertificate Program in Geomaties are meant to increase its marketability and post-graduate vocational outcomes for students. The University may see-some-increase in onrollment in other programs if students elect to take their concurrently with the Gertificate Program. No, there will be no impact on student enrolment in any program.

## Student Enrolment Other Units

This program change has a subtle offect (one second year Geography course substituted for another) for students in the School of Outdoor Recreation, Parks \& Tourism and in the Faculty of EducationNo, there will be no impact on student enrolment in any program.

## Additional Resources

AloneNo, there will be no requirement for additional resources of any kind.

## Teaching Loads

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 $2 X X X$ froes up 0.5 FGE load from a Geography faculty member that can be re-deployed to-other Departmental offerings. This will not affect the existing teaching loads within the department.

| TeachingSupport Services | TeachingSupport Services <br> The move of Geography 3251 to 2XXX and <br> not-offering Geography 2211 for 2014-15 should <br> offset the anticipated time allocations of our Technical <br> Staff and Graduate Assistants to the Geography <br> 2XXX course. In 2015-16, this delisting of <br> net-offering Geography <br> Geoffet the anticipated time allocations of our Technicat <br> somewhy 2211 from Geography programs will lessen loads on our Technical Staff and <br> GA allocations. |
| :--- | :--- |
| Staff and Graduate Assistants to the Geography <br> 2XXX course. In 2015-16, this delisting of Geography <br> 2211 from Geography programs will somewhat <br> tessen loads on our Technical Staff and GA <br> allocationsThere will be no impact on the demand for <br> teaching support services. |  |
| Outside Support <br> None | Outside Support <br> NoneNo outside support of any kind will be required. |


| 3. | New Version of a Degree | HBA.GEOG - Honours BA (Geography Major) |
| :--- | :--- | :--- |

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| HBA.GEOG - Honours BA (Geography Major) | HBA.GEOG - Honours BA (Geography Major) |
| Start Term: Fall 2014 | Start Term: Fall 20142015-16 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :--- | :--- |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type <br> HBA | Degree Type <br> HBA |
| Major | Major <br> GEOG |
| GEOG |  |

## Requirements

## Four Year program

## First Year:

Same as for the BA (Geography Major)

## Second Year:

(a) Geography 2232, 2251, 2271, 2331, 2351, 2511, 2811
(b) One and one-half FCE electives

## Note:

It is recommended that students completing the Certificate Program in Geomatics should take
Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources
Management 2270 as an open elective (in Second or Third Year).

## Third Year:

(a)Two and one-half 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

## Requirements

Four Year program

## First Year:

Same as for the BA (Geography Major)
Second Year:
(a) Geography 2232, 2251, 2271, 2331, 2351, 2511, 2811
(b) One and one-half FCE electives

## Note:

It is recommended that students completing the Certificate Program in Geomatics should take Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources
Management 2270 as an open elective (in Second or Third Year).

## Third Year:

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

## Fourth Year:

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

## Budgetary Considerations

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| Student Enrolment | Student Enrolment <br> The proposed changes to the Certificate Program in <br> Geomatics are meant to increase its marketability <br> and post-graduate vocational outcomes for students. <br> We may see some increase in enrollment in other <br> Geography programs if students elect to take <br> Geography concurrently with the Certificate Program. <br> Geomatics are meant to increase its marketability <br> and post-graduate vocational outcomes for students. <br> We may see some increase in ennollment in other <br> Geography programs if students elect to take <br> Geography concurrently with the Certificate- <br> Program. No, there will be no impact on student <br> enrolment in any program. |
| Student Enrolment Other Units <br> The revision to this program adds the possibility of a | Student Enrolment Other Units <br> 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.

## Additional Resources

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.

## Teaching Loads

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).

## TeachingSupport Services

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.

## Outside Support

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
student taking Natural Resources Management 2270 as part of their Goography degreo program, particularly if a student is concurrently pursuing a Gertificate Program in Geomatics. We anticipate 15 to 20 students pursue the Certificate Program in Goomatics annually. Soe note 6) below concorning support from Faculty of Natural Resourees in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the taboratory component of NRMT 2270-No, there will be no impact on student enrolment in any program.

## Additional Resources

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-coursesNo, there will be no requirement for additional resources of any kind.

## Teaching Loads

The proposed change to the program has no need for additional faculty. Removing Goography 2211 as a required course in combination with the move of Geography 3251 to 2XXX froes up 0.5 FCE load from a-Goography faculty momber that can be re-deployed to-other Departmental offerings or to doveloping and teaching a modular version of select Geomatics courses, particularly Remote Sensing (Geography 4231). This will not affect the existing teaching loads within the department.

## TeachingSupport Services

The move of Geography 3251 to $2 \times X X$ and not-offering Geography 2211 for 2014-15-should effset 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 Goography programs will somewhat lessen loads on our Technical Staff and GA allocations There will be no impact on the demand for teaching support services.

## Outside Support

The proposed addition of Natural Resourees Aanagement 2270 adds an important digital photogrammetry component that Geography alone would not have the infrastructure to offer. The Faculty of Natural Resourees 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 NRMAT 2270 is that Naturat Resourees Management will teach lecture and taboratory 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-Gertificate Program in Geomaties. 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 Resourees Management to find creative ways to help with the annual software maintenance needs of the
laboratory space used to deliver this course.
taboratory space used to deliver this course.No outside support of any kind will be required.

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| HBASC.GEOG - Honours BASc (Geography Major) | HBASC.GEOG - Honours BASc (Geography Major) |
| Start Term: 2014-15 | Start Term: 20142015-1516 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :---: | :---: |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type HBASC | Degree Type HBASC |
| Major GEOG | Major <br> GEOG |
| Minor | Minor |
| Specialization | Specialization |
| Rationale <br> 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. | Rationale <br> Aany 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 Cortificate Program in Geomaties elect to take either Geography 3523 or Natural Resources Management 2270 from this listing The changes will allow us to be more flexible with course scheduling. We can maintain the same range of courses offered as in the past, with a smaller faculty complement - there will be no need to sacrifice the quality of our programs as a result of diminishing teaching resources. The changes will also make scheduling that much more easy in Orillia where the number of faculty are even lower than in Thunder Bay. Furthermore, the changes proposed are simply formalizing an existing practice of permitting students to take 4th year courses earlier but only with the permission of the Chair of the department - with these changes we will be able to cut down on the administrative paperwork for the Registrar's office and the departmental Chairperson. |

## Requirements

Four Year program

## First Year:

(a) Geography 1120
(b) Interdisciplinary Studies 1010
(c) One FCE in Area II (Geography excluded)
(d) One FCE in Area I
(e) One FCE elective (Area II recommended)
(f) One half-course elective

## Second Year:

(a) Geography 2232, 2251, 2271, 2331, 2351, 2511, 2811
(b) One FCE in Area I
(c) One half-course elective

## Note:

It is recommended that students completing the
Certificate Program in Geomatics should take
Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources
Management 2270 as an open elective (in Second or Third Year).

## Third Year:

(a) Two and one-half FCEs in Geography at the third year level
(b) One FCE in Area I
(c) One FCE elective (Area II recommended)
(d) Interdisciplinary Studies 3010

## Fourth Year:

(a) Three FCEs in Geography at the fourth-year level
(b) Interdisciplinary Studies 4010 and 4030, or Interdisciplinary Studies 4901
(c) One FCE elective

## Requirements

Four Year program

## First Year:

(a) Geography 1120
(b) Interdisciplinary Studies 1010
(c) One FCE in Area II (Geography excluded)
(d) One FCE in Area I
(e) One FCE elective (Area II recommended)
(f) One half-course elective

## Second Year:

(a) Geography 2232, 2251, 2271, 2331, 2351, 2511, 2811
(b) One FCE in Area I
(c) One half-course elective

## Note:

It is recommended that students completing the
Certificate Program in Geomatics should take
Geography 3253 as a Geography elective (normally
in Third Year) and take Natural Resources
Management 2270 as an open elective (in Second or Third Year).

## Third Year:

(a) Two-One and one-half FCEs in Geography at the third year level
(b) One FCE in Geography at the fourth year level
(b) One FCE in Area I
(c) One FCE elective (Area II recommended)
(d) Interdisciplinary Studies 3010

Fourth Year:
(a) Three-One FCE in Geography at the third or fourth year level
(b) Two FCEs in Geography at the fourth-year level
(b) Interdisciplinary Studies 4010 and 4030, or

Interdisciplinary Studies 4901
(c) One FCE elective

| Budgetary Considerations |  |  |  |
| :--- | :--- | :---: | :---: |
|  | CURRENT VERSION |  | PROPOSED VERSION |
| Student Enrolment | Student Enrolment <br> No, there will be no impact on student enrolment in <br> any program. |  |  |
| Student Enrolment Other Units | Student Enrolment Other Units <br> No, there will be no impact on student enrolment in <br> any program. |  |  |
| Additional Resources | Additional Resources <br> No, there will be no requirement for additional <br> resources of any kind. |  |  |
| Teaching Loads | Teaching Loads <br> This will not affect the existing teaching loads within <br> the department. |  |  |
| TeachingSupport Services | TeachingSupport Services <br> There will be no impact on the demand for teaching <br> support services. |  |  |
| Outside Support | Outside Support <br> No outside support of any kind will be required. |  |  |


| 5. New Version of a Degree | HBES.GEOG - Honours Bachelor of Environmental Studies <br> (Geography Major) |
| :--- | :--- | :--- |

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| HBES.GEOG - Honours Bachelor of Environmental | HBES.GEOG - Honours Bachelor of Environmental <br> Studies (Geography Major) |
| Studies (Geography Major) |  |
| Start Term: 2014-15 | Start Term: 20142015-1516 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :---: | :---: |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type HBES | Degree Type HBES |
| Major GEOG | Major <br> GEOG |
| Minor | Minor |
| Specialization | Specialization |
| Rationale <br> \#2012-SCI-296 (replace ENST 1120 with ENST <br> 1140) (referred 18Jan2013 and approved <br> 25Apr2013)plus\#2012-SCI-242 (discontinue <br> 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).Include changes proposed in 2013-SCI-2985 (Associated program changes as result of rename Mapping Sciences Certificate as Certificate Program in Geomatics \#2013-SCI-3086). | Rationale <br> \#2012-SCI-296 (replace ENST 1120 with ENST <br> 1140) (referred 18Jan2013 and approved <br> 25Apr2013)plus\#2012-SCI-242 (discontinue <br> ENST4800) and \#2012-SCI-243 (add new ENST <br> 4810) (referred 18Jan2013 and approved <br> 22Mar2013) plus \#2012 SG1-293 (add new WATE <br> 3094) (referred 18Jan2013 and approved <br> 25Apr2013). Associated program changes to HBES <br> (Goography Major).Include changes proposed in <br> 2013-SCI 2985 (Associated program changes as <br> result of rename Mapping Sciences Certificate as <br> Gertificate Program in Geomatics <br> \#2013-SCl-3086). The changes will allow us to be more flexible with course scheduling. We can maintain the same range of courses offered as in the past, with a smaller faculty complement - there will be no need to sacrifice the quality of our programs as a result of diminishing teaching resources. The changes will also make scheduling that much more easy in Orillia where the number of faculty are even lower than in Thunder Bay. Furthermore, the changes proposed are simply formalizing an existing practice of permitting students to take 4th year courses earlier but only with the permission of the Chair of the department - with these changes we will be able to |



| Budgetary Considerations |  |
| :--- | :--- |
| CURRENT VERSION | PROPOSED VERSION |
| Student Enrolment <br> No. This is only a minor change. | Student Enrolment <br> No.-This is only a minor change-, there will be no <br> impact on student enrolment in any program. |
| Student Enrolment Other Units <br> No. This is only a minor change. | Student Enrolment Other Units <br> No-This is only a minor change., there will be no <br> impact on student enrolment in any program. |
| Additional Resources |  |
| No. This is only a minor change. | Additional Resources <br> No-This is only a minor change-, there will be no <br> requirement for additional resources of any kind. |
| Teaching Loads <br> No. This is only a minor change. | Teaching Loads <br> No. This is only a minor change This will not affect the <br> existing teaching loads within the department. |
| TeachingSupport Services <br> No. This is only a minor change. | TeachingSupport Services <br> No. This is only a minor change-There will be no <br> impact on the demand for teaching support services. |
| Outside Support |  |
| No. This is only a minor change. | Outside Support <br> No -This is only a miner change-outside support of <br> any kind will be required. |

6. New Version of a Degree $\quad$ HBESC.GEOG - Honours Bachelor of Environmental Science (Geography Major)

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| HBESC.GEOG - Honours Bachelor of Environmental | HBESC.GEOG - Honours Bachelor of Environmental <br> Science (Geography Major) |
| Science (Geography Major) |  |
| Start Term: Fall 2014 | Start Term: Fall 20142015-16 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :---: | :---: |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type HBESC | Degree Type HBESC |
| Major GEOG | Major GEOG |
| Minor | Minor |
| Specialization | Specialization |
| Rationale <br> 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. | Rationale <br> Many of our Geography degree programs require the existing course (Goography 3251) at the third year of the program. With moving it to second year of these at y programs, thereby replacing Geography 2211 Geogr 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 Goography programs who are also pursuing the Certificate Program in Geomatics elect to take either Geography 3523 or Natural Resources Management 2270 from this listing The changes will allow us to be more flexible with course scheduling. We can maintain the same range of courses offered as in the past, with a smaller faculty complement - there will be no need to sacrifice the quality of our programs as a result of diminishing teaching resources. The changes will also make scheduling that much more easy in Orillia where the number of faculty are even lower than in Thunder Bay. Furthermore, the changes proposed are simply formalizing an existing practice of permitting students to take 4th year courses earlier but only with the permission of the Chair of the department - with these changes we will be able to |


|  | cut down on the administrative paperwork for the Registrar's office and the departmental Chairperson. |
| :---: | :---: |
| Requirements | Requirements |
| Four Year program <br> First Year: <br> (a) Environmental Studies 1140 <br> (b) Two FCEs from: Biology, Chemistry, Geology, Physics <br> (c) One FCE from: Anthropology, Economics, English, History, Indigenous Learning, Philosophy, Political Science, Sociology <br> (d) Mathematics 1151 and 1152 or Physics 1113 and 1133 | Four Year program <br> First Year: <br> (a) Environmental Studies 1140 <br> (b) Two FCEs from: Biology, Chemistry, Geology, <br> Physics <br> (c) One FCE from: Anthropology, Economics, <br> English, History, Indigenous Learning, Philosophy, <br> Political Science, Sociology <br> (d) Mathematics 1151 and 1152 or Physics 1113 and 1133 |
| Second Year: <br> (a) Environmental Studies 2013 and 2210 <br> (b) One FCE Environmental Studies elective (Science <br> Stream) <br> (c) Geography 2232, 2251, 2271, 2331, 2351 <br> (d) Geography 2511 or 2811 | Second Year: <br> (a) Environmental Studies 2013 and 2210 <br> (b) One FCE Environmental Studies elective (Science <br> Stream) <br> (c) Geography 2232, 2251, 2271, 2331, 2351 <br> (d) Geography 2511 or 2811 |
| Note: <br> It is recommended that students completing the Certificate Program in Geomatics should take Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources Management 2270 as an open elective (in Second or Third Year). | Note: <br> It is recommended that students completing the Certificate Program in Geomatics should take Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources Management 2270 as an open elective (in Second or Third Year). |
| Third Year: <br> (a) Environmental Studies 3094 <br> (b) One FCE Environmental Studies elective (Science <br> Stream) <br> (c) One half-course Environmental Studies elective (Science or Arts Stream) <br> (d) Two and one-half FCEs in Geography at the third year level <br> (f) One half-course elective | Third Year: <br> (a) Environmental Studies 3094 <br> (b) One FCE Environmental Studies elective (Science Stream) <br> (c) One half-course Environmental Studies elective (Science or Arts Stream) <br> (d) Two-One and one-half FCEs in Geography at the third year level |
| Fourth Year: <br> (a) Environmental Studies 4810 <br> (b) Three FCEs in Geography at the fourth year level <br> (c) One and one-half FCE electives | (e) One FCE in Geography at the fourth year level <br> (f) One half-course elective <br> Fourth Year: <br> (a) Environmental Studies 4810 <br> (b) Three FGEs-One FCE in Geography at the third or fourth year level <br> (c) Two FCEs in Geography at the fourth year level <br> (d) One and one-half FCE electives |

## Budqetary Considerations

## CURRENT VERSION

## Student Enrolment

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.

## Student Enrolment Other Units

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.

## Additional Resources

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.

## Teaching Loads

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).

## TeachingSupport Services

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.

## Outside Support

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

## PROPOSED VERSION

## Student Enrolment

The proposed changes to the Certificate Program in Goomatics 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 CortificateProgram.No, there will be no impact on student enrolment in any program.

## Student Enrolment Other Units

The revision to this program adds the possibility of a student taking Natural Resources Management 2270 as part of their Goography degree program, particularly if a student is concurrently pursuing a Gertificate Program in Geomatics. We anticipate-15 to 20 -students pursue the-Gertificate 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 taboratory component of NRMT 2270-No, there will be no impact on student enrolment in any program.

## Additional Resources

Foes 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 coursesNo, there will be no requirement for additional resources of any kind.

## Teaching Loads

The proposed change to the program has no need for additional faculty. Romoving Goography 2211 as a required course in combination with the move of Geography 3251 to $2 \times X X$ froes 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 Geomaties courses, particularly Remote Sensing (Geography 4231). This will not affect the existing teaching loads within the department.

## TeachingSupport Services

The move of Geography 3251 to $2 \times X X$ and not-offering Geography 2211 for 2014-15 should effset 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 tessen loads on our Technical Staff and GA allocationsThere will be no impact on the demand for teaching support services.

## Outside Support

The proposed addition of Natural-Resourees Alanagement 2270 adds an important digitat photogrammetry component that Geography alone would not have the infrastructure to -offer. The Faculty of Natural Resourees Management has run this course successfully for more than a decade and we
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.
see no reason to try to duplicate resources. The planned arrangement for NRMAT 2270 is that Naturat Resources Alanagement will teach lecture and taboratory 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 Gertificate Program in Geomaties. 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 eourses, 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 taboratory space used to deliver this course.No outside support of any kind will be required.

## Degree Details

| CURRENT VERSION | PROPOSED VERSION |
| :--- | :--- |
| HBSC.GEOG - Honours BSc (Geography Major) | HBSC.GEOG - Honours BSc (Geography Major) |
| Start Term: Fall 2014 | Start Term: Fall 20142015-16 |
| End Term: No Specified End Date | End Term: No Specified End Date |


| Required Information |  |
| :--- | :--- |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type <br> HBSC | Degree Type <br> HBSC |
| Major | Major <br> GEOG |
| GEOG |  |

## Requirements

## Four Year program

## First Year:

Same as for the BSc (Geography Major)

## Second Year:

(a) Geography 2232, 2251, 2271, 2331, 2351, 2511, 2811
(b) One and one-half FCE electives

## Note:

It is recommended that students completing the Certificate Program in Geomatics should take
Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources
Management 2270 as an open elective (in Second or Third Year).

## Third Year:

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

## Fourth Year:

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

## Requirements

Four Year program

## First Year:

Same as for the BSc (Geography Major)

## Second Year:

(a) Geography 2232, 2251, 2271, 2331, 2351, 2511, 2811
(b) One and one-half FCE electives

## Note:

It is recommended that students completing the
Certificate Program in Geomatics should take Geography 3253 as a Geography elective (normally in Third Year) and take Natural Resources
Management 2270 as an open elective (in Second or Third Year).

## Third Year:

(a) Two-One and one-half FCEs in Geography at the third year level
(b) One FCE in Geography at the fourth year level
(c) One FCE elective in Science (Geography excluded)
$(\epsilon d)$ One and one-half FCE electives

## Fourth Year:

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

| Budgetary Considerations |  |
| :--- | :--- |
| CURRENT VERSION | PROPOSED VERSION |
| Student Enrolment <br> The proposed changes to the Certificate Program in <br> Geomatics are meant to increase its marketability <br> and post-graduate vocational outcomes for students. <br> We may see some increase in enrollment in other <br> Geography programs if students elect to take <br> Geography concurrently with the Certificate Program. | Student Enrolment <br> The proposed changes to the Gertificate Program in <br> Geomaties are meant to inerease its marketability <br> and post graduate vocational outcomes for students. <br> We may see some increase in enrollment in other <br> Geography programs if students elect to take <br> Geography coneurrently with the Gertifieate <br> Program. No, there will be no impact on student <br> enrolment in any program. |
| Student Enrolment Other Units | Printed: $01 / 09 / 2015$ |

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.

## Additional Resources

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.

## Teaching Loads

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).

## TeachingSupport Services

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.

## Outside Support

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

The revision to this program adds the possibility of a student taking Natural Resources Alanagement 2270 as part of their Goography 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 Goomaties annually. Soc note 6) below concorning support from Faculty of Natural Resources in offering the NRMT 2270 course and support from the Department of Geography and the Environment in the taboratory component of NRMT 2270.No, there will be no impact on student enrolment in any program.

## Additional Resources

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 coursesNo, there will be no requirement for additional resources of any kind.

## Teaching Loads

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 froes up 0.5 FGE load from a Goography 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). This will not affect the existing teaching loads within the department.

## TeachingSupport Services

The move of Geography 3251 to 2XXX and not-offering Geography 2211 for 2014-15-should effset the anticipated time allocations of our Technical Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Goography 2211 from Goography programs will somewhat lessen loads on our Technical Staff and GA allocationsThere will be no impact on the demand for teaching support services.

## Outside Support

The proposed addition of Natural Resourees Management 2270 adds an important digital photogrammetry component that Goography 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 resourees. The planned arrangement for NRMT 2270 is that Naturat Resources Management will teach lecture and taboratory 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 particutarly to support Goography and other students in the Gertificate Program in Goomatics. The detail as to whether or not a unique laboratory section for students in the Cortificate 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
Resourees Management to find creative ways to help
with the annual software maintenance needs of the laboratory space used to deliver this course.
with the annual software maintenance needs of the taboratory space used to deliver this course.No outside support of any kind will be required.
8. New Version of a Degree $\quad$ HBSC.GEOG.GEOL - Honours BSc (Geography with Geology Minor)

## Degree Details

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

## PROPOSED VERSION

HBSC.GEOG.GEOL - Honours BSc (Geography with Geology Minor)
Start Term: Fall 20142015-16
End Term: No Specified End Date

| Required Information |  |
| :---: | :---: |
| CURRENT VERSION | PROPOSED VERSION |
| Institution Unit <br> Faculty of Science and Environmental Studies | Institution Unit <br> Faculty of Science and Environmental Studies |
| Degree Type HBSC | $\begin{aligned} & \text { Degree Type } \\ & \text { HBSC } \end{aligned}$ |
| Major GGGL | Major GGGL |
| Minor | Minor |
| Specialization | Specialization |
| Rationale <br> 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. | Rationale <br> Many of our Geography degree programs require the existing course (Geography 3251) at the third yoar of same pram. Win moring it 10 seconal yoar of these at year 2, we have replaced the requirement of Geography 3251 or 3523 at year 3 with a more half course in a list of third year Geography courses and one Natural Resources Management course, with the recommendation that students in Geography Program in Geomaties elect to take either Geography 3523 or Natural Resources Management 2270 from this listing The changes will allow us to be more flexible with course scheduling. We can maintain the same range of courses offered as in the past, with a smaller faculty complement - there will be no need to sacrifice the quality of our programs as a result of diminishing teaching resources. The changes will also make scheduling that much more easy in Orillia where the number of faculty are even lower than in Thunder Bay. Furthermore, the changes proposed are simply formalizing an existing practice of permitting students to take 4th year courses earlier but only with the permission of the Chair of the department - with these changes we will be able to cut down on the administrative paperwork for the |


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| Requirements |
|  |
| Four Year program |
| First Year: |
| (a) Geography 1140 |
| (b) Geology 111111131 |
| (c) Mathematics 1151 and 1152 |
| (d) Two FCE electives in Science (Geography |
| excluded) |

## Second Year:

(a) Geography 2232, 2251, 2271, 2331 and 2351
(b) Geology 2214, 2215, 2217 and 2310
(c) One half-course elective in Science

## 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 elective in Science

## Fourth Year:

(a) Three FCEs in Geography at the fourth year level
(b) One FCE in Geology
(c) One FCE elective in Science

## 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 and the
Environment 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.

Registrar's office and the departmental Chairperson.

## 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)

## Second Year:

(a) Geography 2232, 2251, 2271, 2331 and 2351
(b) Geology 2214, 2215, 2217 and 2310
(c) One half-course elective in Science

## 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-One FCEs in Geography at the third year level
(b) One FCE in Geography at the fourth year level
(c) Geology 3410 (permission of the Department)
( $\in d$ ) One and a half FCEs in Geology at the third year level
(de) One FCE elective in Science

## Fourth Year:

(a) Three FGEs-One FCE in Geography at the third or fourth year level
(b) Two FCEs in Geography at the fourth year level (c) One FCE in Geology
( $e d$ ) One FCE elective in Science

## 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 and the
Environment 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 <br> program: Geology 1110,1130, 2214, 2310 and <br> $3410 ;$ Biology 1110,1130 and 2210. |
| :--- | :--- |
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## Budgetary Considerations

## CURRENT VERSION

## Student Enrolment

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.

## Student Enrolment Other Units

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.

## Additional Resources

None

## Teaching Loads

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 $2 X X X$ frees up 0.5 FCE load from a Geography faculty member that can be re-deployed to other Departmental offerings.

## TeachingSupport Services

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.

## Outside Support

None

## PROPOSED VERSION

## Student Enrolment

The proposed changes to the Certificate Program in Geomaties 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 olect to take their concurrently with the Certificate Program.No, there will be no impact on student enrolment in any program.

## Student Enrolment Other Units

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 EducationNo, there will be no impact on student enrolment in any program.

## Additional Resources

AoneNo, there will be no requirement for additional resources of any kind.

## Teaching Loads

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 Goography 3251 to 2XXX froes up 0.5 FCE load from a Geography faculty member that can be re-deployed to-other Departmental offerings.This will not affect the existing teaching loads within the department.

## TeachingSupport Services

The move of Geography 3251 to $2 \times X X$ and not-offering Geography 2211 for 2014-15 should effset the anticipated time allocations of our Technicat Staff and Graduate Assistants to the Geography 2XXX course. In 2015-16, this delisting of Geography 2211 from Geography programs will somewhat tessen-loads on our Technical Staff and GA allocationsThere will be no impact on the demand for teaching support services.

## Outside Support

NoneNo outside support of any kind will be required.

