

***Course and curriculum changes refers to all course introductions, modifications, and deletions, and program modifications.**

Course/curriculum change forms are available at: <http://umanitoba.ca/admin/governance/forms/index.html>. Please ensure that you are using the most current version of Adobe Reader or Adobe Acrobat Pro when completing the forms (<https://get.adobe.com/reader/>).

Deadlines for submission

Please refer to the SCCCC Timetable for Submissions for specific dates (<http://umanitoba.ca/governance/#meeting-schedules>).

Fall deadlines:

- **mid-September** - for proposals involving a net increase of 9 or fewer credit hours for consideration by the Senate Committee on Curriculum and Course Changes (SCCCC) only.
- **mid-August** - for proposals involving a net increase of greater than 9 credit hours, for consideration by the Senate Planning and Priorities Committee (SPPC) and SCCCC (see Section III).

Spring Deadline:

- **mid-February** - for proposals involving a net increase of 9 or fewer credit hours, for consideration by the SCCCC only.

Please organize your submission as outlined below. Submit a hard copy (single-sided, no staples) and an electronic copy to the Office of the University Secretary. Provide the electronic copy as a **single** PDF file (including the summary sheet, course/curriculum change forms, and supporting documentation). PDF portfolios will not be accepted.

I. SUMMARY OF COURSE CHANGES AND ROUTINE PROGRAM MODIFICATIONS

A **summary sheet** is to be provided with all course and curriculum changes submitted to the SCCCC. See [Appendix I](#) for examples. The summary sheet must be organized by department and must include, **for each department**¹:

- **In the following order**, a list of all courses to be deleted, introduced, or modified. Include the subject codes and course numbers, course names, and credit hours. Organize the lists of course deletions, introductions, and modifications in alphabetical and ascending numerical order using the subject codes and course numbers.
- A statement of the net change in credit hours* (i.e. total credit hours deleted + total credit hours introduced = net change in credit hours).
- A list of the programs to be modified, including, for each program, a brief description of the proposed changes.
- An executive summary is not required, with the exception that the Université de Saint-Boniface will provide an executive summary in English.

*Course changes resulting in a net increase of more than 9 credit hours will be considered by both the SCCCC and the SPPC. See [Section III](#).

¹ Where a faculty, college, or school is not departmentalized, the summary sheet should include the same sorts of information, but for the faculty, college, or school.

II. PROPOSALS FOR SUBSTANTIAL PROGRAM MODIFICATIONS

Proposals to substantially modify existing curricula are sometimes made following a major curriculum review. Different from routine program modifications, they involve numerous course changes and/or significant restructuring of the curriculum. Proposals for substantial program modifications must include:

- (a) A **summary sheet** as described in Section I above.
- (b) **An executive summary** that highlights and provides a brief rationale for important changes and clearly states when the changes are to take effect. To ensure that program changes are reflected in the Academic Calendar, program modifications will be implemented for the next ensuing Fall Term unless a subsequent Fall Term is indicated. Program changes cannot be implemented in the Winter Term.
- (c) **Current and revised program charts and program descriptions** as these would appear in the Academic Calendar, including modifications to any lists of required or elective courses.
- (d) **A detailed transition plan** that:
 - includes a timeline for introducing the revised curriculum and phasing out the existing curriculum, including a timeline for deleting any existing courses not to be used in the modified curriculum;
 - includes a course map (or curriculum crosswalk);
 - describes a pathway(s) for continuing/existing students to either complete the existing curriculum or transition to the modified curriculum;
 - outlines future steps associated with the transition to, or the implementation of, the modified curriculum, including a plan to communicate curriculum changes and a timeline for implementation to students, Academic Advisors, and academic units (including other faculties/colleges/schools/departments), as appropriate.
 - Contact the Office of the Registrar and Enrolment Services (Sharon.Bannatyne@umanitoba.ca) for advice or assistance.
- (e) **Confirmation of consultation** with other units that might be affected by the proposed course and curriculum changes, including Statements of Support from those units. (See [Section VIII](#) – Completing the Form – Statement of Support: Request for Action).
- (f) **A description of the resource implications**, including either any anticipated costs (including transitional and/or ongoing costs) that would arise from the introduction of a revised curriculum or a clear demonstration that the proposal is resource neutral.
- (g) The **SPPC Program Proposal Budget Form** must be completed if the proposal involves a request for new resources. (<http://umanitoba.ca/admin/governance/forms/index.html>)

Units are strongly encouraged to consult with the Deputy Provost (Academic Planning and Programs), the Academic Programs Specialist (Office of the Provost and Vice-President (Academic)), the Associate University Secretary (Senate) (Office of the University Secretary), and/or the University Budget Officer, as appropriate, at the outset of planning for substantial revisions to an existing program.

Information on the approval process for major amendments to, or a major expansion of, an existing program is available on the webpage of the Provost and Vice-President (Academic) at http://umanitoba.ca/admin/vp_academic/academic_programs/3722.html

III. COURSE CHANGES BEYOND NINE CREDIT HOURS

Course changes resulting in a net increase of more than 9 credit hours in a department will be considered by both the Senate Committee on Curriculum and Course Changes (SCCCC) and the Senate Planning and Priorities Committee (SPPC). Where a faculty, college, or school is not departmentalized, the net change in credit hours is calculated for the faculty, college, or school.

The net change in credit hours of interest to the SPPC relates to the overall number of credit hours of courses offered by an academic unit (i.e. all of the unit's courses in the Academic Calendar). It does not relate to the number of credit hours required in any given degree, diploma, or certificate program.

To calculate the net change in credit hours, add the sum of credit hours for all proposed course deletions and the sum of credit hours for all proposed course introductions:

$$\text{total credit hours deleted} + \text{total credit hours introduced} = \text{net change in credit hours}$$

For example, if your unit is proposing to delete eight 3 credit hour courses (totalling -24 credit hours) and to introduce ten 3 credit hour courses (totalling +30 credit hours), the net change in credit hours would be +6 credit hours.

Proposals involving a net increase of more than 9 credit hours must be submitted to the Office of the University Secretary by the mid-August deadline (see SCCCC Timetable for Submissions) and must include:

- **a covering memo to the SPPC**, from the Dean/Director, indicating the date on which the course and curriculum changes have been approved by the faculty/college/school council, as appropriate;
- **a statement on the resource implications** of the proposal;
- **a summary sheet** as described above in Section I;
- The **SPPC Program Proposal Budget Form** must be completed if the proposal involves a request for new resources. (<http://umanitoba.ca/admin/governance/forms/index.html>).

The same information and documentation, with the exception of the covering memo to the SPPC, is also to be included in the unit's submission to the SCCCC. The SCCCC will consider the academic merits of the course and curriculum changes and the SPPC will consider the resource implications of the proposed changes.

IV. COMPLETING THE UNDERGRADUATE COURSE DELETION FORM

- Complete the course deletion form to delete courses that will no longer be offered.
- Complete a course deletion form and a [course introduction form](#) (i.e. to re-introduce the course) in the following situations:
 - to change the course number for an existing course
 - to change the subject code for an existing course
 - to change the number of credit hours for an existing course
 - where a change to the long course title requires a to change the short course title
- It is not necessary to complete a separate form for each course deletion. Two (2) course deletions can be proposed on a single form. Complete additional forms, as required. Organize course deletions in alphabetical and numerical order, by subject code and course number.

SECTION A

- Use the drop-down lists to indicate the faculty/college/school and department proposing the course deletion. Indicate the program where there is no department (e.g. Canadian Studies, Environmental Design). The Université de Saint-Boniface is considered a faculty.

SECTIONS B-1 and B-2 – COURSES TO BE DELETED

- Provide the **subject code**, **course number**, and **number of credit hours** in the spaces provided.
- **Last term offered** – Use the drop-down list to select the current Winter Term and Year (normally) or to request a different term. Indicate a different term in the first line of the next form field. Courses offered for the last time in a Winter Term would not be available beginning with the next ensuing Summer Term.
- Use the check boxes to indicate if the course is on the **Written English (W)**, **Mathematics (M)**, or **RIC List**. Check all boxes that apply.
- Indicate the reason for the course deletion. Use the check box to indicate where the deletion responds to a recommendation in an [external undergraduate program review](#). Elaborate on the recommendation and how the deletion addresses that, if appropriate.
- Indicate if the course deletion leads to changes to (i) other **courses/programs in your unit** and/or (ii) **courses/programs in other units**. This could be another department, faculty, college, or school.
- In the space provided, **list other courses/programs affected**, separated by semicolons. For example, other courses that use the deleted course as a prerequisite or corequisite or programs that use the course as a required or elective course.
Be as specific as possible. If another program is affected, identify the program and academic unit. If another course is affected, identify the course by its subject code and course number. (See [page 6](#) for information on how to identify courses/programs that would be impacted.)
- If the course deletion leads to a program modification in your unit, include a Program Modification Form with your faculty/college/school submission to SCCCC. See [Section VII](#) Completing the Undergraduate Program Modification Form.
- If the course deletion leads to a course modification in your unit, include a Course Modification Form with your units' submission to SCCCC. See [Section VI](#) Completing the Undergraduate Course Modification Form.

- If the course deletion leads to a course/program modification in other units, attach the form Statement of Support: Part A - Request for Action and any responses received (Part B) to the relevant course deletion form. [See Section VIII](#) Completing the Form - Statement of Support: Request for Action.

SECTION C – SUPPORTING DOCUMENTATION ATTACHED

- Use the check boxes to indicate the supporting documents attached to the course deletion form or included with the unit's submission to SCCC as part of a Program Modification.

SECTION D - SIGNATURES

- Print or type names and sign in the spaces provided. The Head should sign for the department and the Dean/Director for the faculty/college/school. Where more than one faculty/school is involved, the form should be co-signed by the Deans/Directors of the faculties/schools involved, or a statement of support should be provided.

Identifying other courses/programs impacted by a course deletion

- Use the current undergraduate Academic Calendar to identify other courses and programs across the University impacted by a course deletion:
 - Use the search function in the online Academic Calendar (CourseLeaf)
 - Complete a keyword search (Control + F on a PC; Command + F on a Mac) of the current [PDF version](http://umanitoba.ca/academics) of the Calendar (<http://umanitoba.ca/academics>).
- Courses impacted include those that use the deleted course as a prerequisite or corequisite or are cross-listed with the deleted course. The unit offering the affected course would submit a proposal to modify their course, to reflect that the prerequisite/corequisite/cross-listed course was no longer offered.
- Programs impacted include those that use the deleted course as a required or elective course or as an admission requirement. Units offering an impacted program would submit a program modification and/or a proposal to modify the admission requirements. The Senate Committee on Admissions (SCADM) would consider the revised admission requirements.
- For example, a search of the 2020 – 2021 Academic Calendar shows that, outside of other courses and programs in the Department of Psychology, PSYC 1200 is also:
 - required or optional course for advanced entry admission to: School of Dental Hygiene, B.H.Ecol. in Family Social Sciences (Department of Community Health Sciences);
 - a required or optional course in: Diploma in First Nations Community Wellness, Extended Education Division, B.H.Ecol. in Family Social Sciences (Department of Community Health Sciences), B.H.Sc. and B.H.St. (Faculty of Health Sciences), B.Sc. in Human Nutritional Sciences (Faculty of Agricultural and Food Sciences), B.Kin., B.Kin. – A.T., B.R.M.C.D., (Faculty of Kinesiology and Recreation Management, B.R.T. (College of Rehabilitation Sciences), B.Sc.(Maj.) and B.Sc.(Hons.) in Psychology (Faculty of Science);
 - a prerequisite for: PSYC courses offered by USB, EDUA 5760, FMLY 2800, FMLY 3220, FMLY 3240, HEAL 2600, HEAL 4500, HNSC 3320, HNSC 3350, NURS 2100, REC 3180
 - on the RIC list.
- The Office of the Registrar and Enrolment Services (ORES) (Calendar Coordinator) can assist units to identify courses and programs affected by a course deletion. Please make an initial effort to identify impacted courses and programs through a search of the Academic Calendar before requesting the Calendar Coordinator's assistance.
- Course deletions that impact courses/programs in other units should be brought forward for the Fall deadline for SCCC and/or SPPC, as appropriate. Units initiating changes that impact other units are **required** to advise those units of the proposed changes and indicate the term the changes would take effect. This will give other units an opportunity to submit corresponding changes to the SCCC **for the same Fall deadline** (ideally) or the next ensuing Spring deadline.
- Use the form Statement of Support: Part A - Request for Action to advise other units of changes that will affect their courses/programs. [See Section VIII](#) Completing the Form - Statement of Support: Request for Action.

V. COMPLETING THE UNDERGRADUATE COURSE INTRODUCTION FORM

- Use the course introduction form to introduce a new course.
- Complete a course introduction form and a course deletion form in order to re-introduce a course with a different:
 - course number
 - subject code
 - number of credit hours
 - long title and short title (i.e. where both the long title and the short title will change)
- [See Section IV](#) Completing the Undergraduate Course Deletion Form.

SECTION A – COURSE DETAILS

- Use the drop-down lists to indicate the faculty/college/school and department proposing the course introduction. Indicate the program where there is no department (e.g. Canadian Studies, Environmental Design). The Université de Saint-Boniface is considered a faculty.
- The **subject code** (e.g. ECON, CHEM, NURS, etc.) and **course number** must be confirmed with the Office of the Registrar and Enrolment Services (ORES) (Calendar Coordinator) before submitting the proposal for the SCCCC's review. NB: Course numbers from courses that were previously deleted cannot be re-used.
- **Long title** (maximum 90 characters; e.g. History of Opera I: From Monteverdi to Mozart)
- **SHORT TITLE** (maximum 30 characters, IN ALL CAPS: e.g. HISTORY OF OPERA I) If the long title is 30 or fewer characters, it can also be used as the short title.
- **Credit hours** – indicate the number of credit hours in Section A and in the course description.
- **Grading mode** – use the drop-down list to indicate either “letter grade” or “pass/fail”. *The course description must indicate where the grading mode is “pass/fail”.*
- **First term offered** – use the drop-down list to select the next ensuing Fall Term and Year (normally) or to request a different term. Exceptions may apply for courses to take effect in the next ensuing Summer Term. Requests for a different term may be noted manually on the form or in the first line of the next form field in Section B.

SECTION B – COURSE DESCRIPTION FOR ACADEMIC CALENDAR

Provide the course description exactly as it would appear in the Academic Calendar. Forms will be returned to the academic unit for amendment where course descriptions are incomplete.

- In the first line of the course description, indicate the **subject code**, **course number**, **long title**, number of **credit hours** (e.g. MUSC 3230 Acoustics of Music 3 cr).
- In the body of the course description, provide the following information **in the order listed**:
 - Indicate where a **laboratory**, **tutorial**, or **other activity** is required in a time slot separate from the lecture section, at the beginning of the course description [e.g. (Lab required)].
 - Provide a brief description of the **course content** (ideally not more than 4 – 5 lines). Indicate if there is a **field trip**.
 - List **mutually exclusive** and **equivalent courses** prefaced by “**May not be held with...**” and indicated by the subject code and course number and including all applicable previous course numbers but not including IMS course numbers. Be sure to include Université de Saint Boniface course numbers where equivalency exists.
 - Indicate any **registration restrictions** ([See Section V D](#)).

- Indicate where the course can be completed as a **topics course** multiple times under different titles.
- Indicate where the grading mode is **pass/fail**.
- Indicate any **prerequisite, corequisite, pre- or corequisite courses** by the subject code and course number (but not the course title). Include all applicable previous course numbers **but not including IMS course numbers from the legacy system (e.g. 017.336)**. Be sure to include equivalent Université de Saint Boniface course numbers.

In cases where a prerequisite course is no longer offered, use the phrase "or the former" in the prerequisite list (e.g., ECON 1010 and ECON 1020 or the former ECON 1200).

Indicate as a letter grade, the **required minimum grade** for an examination or an equivalency test. Indicate the required minimum grade for prerequisite courses where the minimum grade is not a (C) [e.g. BIOL 1030 (B)].

- [See Appendix II for examples](#) of course descriptions.
- [See page 10 for definitions](#) of prerequisite, corequisite, pre- or corequisite, and equivalent and mutually exclusive courses.

SECTION C – RATIONALE FOR NEW COURSE

- Use the check box to indicate where a course introduction responds to a recommendation in an external undergraduate program review.
- Provide a brief rationale for the course introduction and explain how it would contribute to the curriculum. Reasons for course introductions might include, but are not limited to: introducing new material in keeping with advances and/or changes in the foci of a particular discipline or department; responding to a recommendation in an academic program review; accommodating the expertise of a new faculty member; division of a spanned course into two single term courses.
- Indicate if the course introduction replaces a current course or is a new required or elective course that will lead to program changes in your unit. [See Section V F](#) Resulting Changes to Programs.

SECTION D – REGISTRATION RESTRICTIONS

- Indicate where a restriction is to be added, to restrict registration to students in a particular academic unit and/or program(s), including level or year of study. List the academic unit and/or programs(s) in the spaces provided. *Indicate registration restrictions in the course description.* Contact the Office of the Registrar and Enrolment Services (ORES) to discuss options for restricting registration.

SECTION E – ADDITIONAL COURSE DETAILS

Laboratory / Tutorial / Field Trip / Other Required Activity

- Use the check boxes to indicate where there will be a laboratory, tutorial, or other activity, that will be scheduled separate from the lecture section, and/or where a field trip(s) is required. Check all boxes that apply.
- NB: *Laboratory, tutorial, and other activities must be indicated at the beginning of the course description (Lab required) and the field trip(s), within the course description. [See Section V B](#) above and examples of course descriptions in [Appendix II](#).*

Topics courses

- Use the check boxes to indicate (i) if the proposed course is a topics course and (ii) if the topics course can be held multiple times under different titles. Check both boxes where both apply. *If a*

topics course can be held multiple times under different titles, indicate this in the course description. [See Section V B](#) above and examples of course descriptions in [Appendix II](#).

Written English and Mathematics Requirements, Recommended Introductory Course List

- Use the check boxes to indicate where the course is intended to satisfy the Written English (W) or the Mathematics (M) requirement or is to be included on the Recommended Introductory Course List (RIC List). Check all boxes that apply.
- Attach the form Statement of Support: Part A -Request for Action and responses received (Part B) to the relevant course introduction form.
- [See Section VIII](#) Completing the Form Statement of Support: Request for Action.

SECTION F – RESULTING CHANGES TO COURSES / PROGRAMS

- Use the check boxes (check all boxes that apply) to indicate whether the course introduction leads to changes to:
 - other courses in your unit
 - programs in your unit
 - courses in other academic units
 - program changes in other academic units
- In the space provided, list all courses/programs affected, separated by semicolons. Be as specific as possible, identifying courses by subject code and course number (e.g. SOC 1000) and programs by the credential and academic unit.
- If the course introduction leads to program modifications in your unit, include a Program Modification Form with your unit's submission to SCCC. [See Section VII](#) Completing the Program Modification Form.
- If the course introduction leads to program changes in other academic units, attach the form Statement of Support: Part A -Request for Action and any responses received (Part B). [See Section VIII](#) Completing the Form Statement of Support: Request for Action.
- Course introductions that impact programs in other units should be brought forward for the Fall deadline for SCCC or SPPC, as appropriate. Units initiating changes that impact other units are **required** to advise those units of the proposed changes and indicate the term the changes would take effect. This will give other units an opportunity to submit corresponding changes to the SCCC **for the same Fall deadline** (ideally) or the next ensuing Spring deadline.
- [Refer to Section IV](#) above (page 6) for instructions on identifying impacted courses and programs.

SECTION G – STATEMENT OF CHANGES TO COSTS, WORKLOAD, AND/OR SUPPLIES

- Provide a statement of changes to costs if there is a change in any of the following:
 - workload of academic or support staff or reassignment of workload from one faculty/school to another;
 - requirements for additional space, renovations to existing space or changes in the usage of space;
 - costs of supplies and expenses including any specific media/technology requirements associated with the teaching of the course.

SECTION H – PREREQUISITES, COREQUISITES, AND EQUIVALENCY/MUTUAL EXCLUSIVITY

- In the spaces provided, list all prerequisite, corequisite, pre- or corequisite, and mutually exclusive courses, including all applicable previous courses numbers (including previous Aurora and IMS course numbers). Be sure to include equivalent Université de Saint Boniface course numbers.
- Where it is necessary to list a number of courses, use “and” or “or” statements and make use of [square brackets] to separate lists where these would provide clarity. See examples provided in [Appendix II](#).
- Indicate where a minimum letter grade, other than a “C” grade, is required for a prerequisite course, examination, or equivalency test. Indicate where concurrency is allowed.

Use of terms:

- **Prerequisite course** – a course that must be taken before the proposed course. A minimum grade of “C” is assumed. A different minimum grade must be stated.
- **Pre- or Corequisite course** – where concurrency in the prerequisite course is allowed
- **Corequisite course** – a course that must be taken at the same time as the proposed course (cannot be a spanned course)
- **Equivalent course** – any existing or former course, with the same number of credit hours and at the same level, that could be used in place of the proposed course to meet program requirements based on equivalent course content. Equivalent courses cannot be held together for credit.
- **Mutually exclusive course** – any existing or former course, with significant content overlap, but cannot be used in place of the proposed course because it is at a different level or has a different number of credit hours. Courses once offered as topics courses are also mutually exclusive to newly introduced courses with the same topic. Mutually exclusive courses cannot be held together for credit.

Course equivalency/mutual exclusivity is set up in the system to prevent students from registering in and holding credit for two courses with the same or similar content.

- **Spanned course** – a course that spans the Fall and Winter Terms

SECTION I – SUPPORTING DOCUMENTATION ATTACHED

- Use the check boxes to indicate the **supporting documents** attached to the course introduction form or included with the faculty/college/school submission to SCCCC as part of a proposed Program Modification. Check all boxes that apply.
- A **course outline** is required for all course introductions. Exceptions are sometimes allowed where an existing course is being re-introduced, for example, with a different course number or course title.
- Course outlines are provided to SCCCC for information on the manner in which the course content set out in the course description will be delivered and evaluated. The SCCCC recognizes that course outlines may be subject to future changes by the instructor.
- **See Section IX Other Supporting Documentation** for information on content to be provided in the course outline for the SCCCC.
- A **Library statement** is normally required for a course introduction, including topics courses. A library statement may not be required for the following types of courses: studio, ensemble, clinical and other practicums, co-operative, field work, and work terms.
- **See Section IX Other Supporting Documentation** for additional information on Library statements.
- Attach supporting documentation in the order listed in Section I of the form.

SECTION J - SIGNATURES

- Print or type names and sign in the spaces provided. The Head should sign for the department and the Dean/Director for the faculty/college/school. In cases where there is more than one faculty/college/school involved, the form should be co-signed by the Deans/Directors of the faculties/colleges/schools involved, or a supporting statement should be provided.

VI. COMPLETING THE UNDERGRADUATE COURSE MODIFICATION FORM

- Use the course modification form in order to change the:
 - long course title without changing the short course title
 - course description (minor changes and excluding changes to course content, which would require a course deletion and introduction)
 - prerequisite, corequisite, pre- or corequisite, and or mutually exclusive courses
 - grading mode
 - registration restrictions
 - suitability for the Written English (W) or Mathematics (M) requirement or the Recommended Introductory Course List (RIC List)
- If the short course title, the course number, the subject code, or the number of credit hours is to be changed **do not use this form**. The current course **MUST** be deleted and introduced under the new title and/or number.

SECTION A – COURSE DETAILS

- Use the drop-down lists to indicate the faculty/college/school and department proposing the course deletion. Indicate the program where there is no department (e.g. Canadian Studies, Environmental Design). The Université de Saint-Boniface is considered a faculty.
- Indicate the **subject code** (e.g. ECON, CHEM, NURS, etc.) and **course number**.
- Provide the **current long title** (maximum 90 characters; e.g. *History of Opera I: From Monteverdi to Mozart*).
- Indicate the **revised long title** (maximum 90 characters), if the long title is to be modified.
- Indicate the **current credit hours**.
- **Revised grading mode** – Use the drop-down list to indicate if the grading mode for the course will be changed from a standard letter grade to pass/fail or vice versa. *The course description must indicate where the grading mode is “pass fail”*.
- **Changes Take Effect** – Use the drop-down list to select the next ensuing Fall Term and Year (normally) or to request a different term. Exceptions may apply for courses to take effect in the next ensuing Summer Term. Requests for exceptions may be noted manually on the form or in the first line of the next form field.

SECTION B – MODIFIED COURSE DESCRIPTION

- Provide a modified course description exactly as it would appear in the Academic Calendar. Forms will be returned to the unit for amendment where course descriptions are incomplete.
- [See Section V B](#) above (pages 7–8) for information on the format of, and information to be included in, the course description.
- [See Appendix II](#) for examples of course descriptions.

SECTION C – CURRENT COURSE DESCRIPTION

- Provide the current course description exactly as it appears in the current Academic Calendar.

SECTION D – RATIONALE

- Use the check box to indicate where a course modification responds to a recommendation in an external undergraduate program review.
- Provide a brief description of the modification and the rationale for the change, including an explanation of how it might enhance or otherwise impact the curriculum. Reasons for modifying a course might include but are not limited to: updating material in keeping with advances and/or changes in the foci of a particular discipline or department; responding to a recommendation in an academic program review; responding to program modifications.

SECTION E – DETAILS OF PROPOSED MODIFICATIONS

(Complete this section only where changes to any of the following things are proposed.)

Adding/Revising Registration Restriction

- Indicate where a restriction, to restrict registration to students in a particular academic unit and/or program(s), including level or year of study, is to be added or revised. List the academic unit and/or programs(s) in the spaces provided. *Indicate registration restrictions in the modified course description.* Contact the Office of the Registrar and Enrolment Services (ORES) to discuss options for restricting registration.

Adding /Removing Required Laboratory / Tutorial / Field Trip / Other Activity

- Use the check boxes to indicate whether the course is being modified in order to add/remove: a laboratory requirement, a tutorial, a field trip, or other activity. Check all boxes that apply.
- Describe the Other Activity in the space provided, or use the space to seek the SCCC's advice on whether to note a particular activity in a course description.
- *NB: Where a requirement(s) is being added, it must be indicated in the modified course description.* Laboratory, tutorial, and other activities, to be scheduled separate from the lecture section, requirements must be indicated at the beginning of the course description (Lab required) and the field trip(s), within the course description. (See Section V B above and examples of course descriptions in Appendix II.)

Written English and Mathematics Requirements, Recommended Introductory Course List

- Use the check boxes to indicate where a modified course now satisfies / no longer satisfies: the Written English (W) or the Mathematics (M) requirement or criteria for the Recommended Introductory Course List (RIC List). Check all boxes that apply.
- Attach the completed form Statement of Support: Part A - Request for Action and responses received (Part B) to the relevant course modification form. See Section VIII Completing the Form Statement of Support: Request for Action.

SECTION F – RESULTING CHANGES TO COURSES / PROGRAMS

- Use the check boxes (check all boxes that apply) to indicate whether the course modification leads to changes to:
 - other courses in your unit
 - programs in your unit
 - courses in other academic units
 - program changes in other academic units

- In the space provided, list all of the courses/ programs affected, separated by a semicolon. Be as specific as possible, identifying the courses by subject code and course number (e.g. SOC 1000) and programs by the credential and academic unit.
- If the course modification leads to other course modifications in your unit, include a Course Modification Form with your units' submission to SCCCC. [See Section VI](#) Completing the Undergraduate Course Modification Form.
- If the course modification leads to program modifications in your unit, include a Program Modification Form with your unit's submission to SCCCC. [See Section VII](#) Completing the Program Modification Form.
- If the course modification leads to program changes in other academic units, attach a completed form Statement of Support: Part A - Request for Action and any responses received (Part B). [See Section VIII](#) Completing the Form Statement of Support: Request for Action.
- Course modifications that impact courses and programs in other units should be brought forward for the Fall deadline for SCCCC or SPPC, as appropriate. Units initiating such changes are **required** to advise other units of the proposed changes and indicate the term the change would take effect. This will give other units an opportunity to submit corresponding changes to the SCCCC **for the same Fall deadline** (ideally) or the next ensuing Spring deadline.
- [Refer to Section IV](#) above for instructions on identifying impacted courses and programs.

SECTION G – STATEMENT OF CHANGES TO COSTS, WORKLOAD, AND/OR SUPPLIES

- Provide a statement of changes to costs if there is a change in any of the following:
 - Workload of academic or support staff or reassignment of workload from one faculty/school to another.
 - Requirements for additional space, renovations to existing space or changes in the usage of space.
 - Costs of supplies and expenses including any specific media/technology requirements associated with the teaching of the course.

SECTION H – [CHANGES TO PREREQUISITES, COREQUISITES, & EQUIVALENCY/MUTUAL EXCLUSIVITY](#)

- [See page 10 for definitions](#) of prerequisite, corequisite, equivalent, and mutually exclusive courses.
- **NEW!!** In the spaces provided, list **ONLY** prerequisite, corequisite, pre- or corequisite, and mutually exclusive courses being **ADDED** or **REMOVED**. Include any applicable previous course numbers (including previous Aurora and IMS course numbers). Be sure to include equivalent Université de Saint Boniface course numbers, where applicable.
- Indicate where a minimum letter grade, other than a "C" grade, is required for a prerequisite course, examination, or equivalency test. Indicate where concurrency is allowed.
- Where it is necessary to list a number of courses, be explicit by using "and" and "or" statements and make use of [square brackets] to separate lists where these would provide clarity. See examples provided in [Appendix II](#).

SECTION I – SUPPORTING DOCUMENTATION ATTACHED

- Use the check boxes to indicate which supporting documents are attached to the course modification form or included with the unit's submission to SCCC as part of a proposed Program Modification. Check all boxes that apply. [See Section IX](#) Other Supporting Documentation.
- Attach supporting documentation in the order listed in Section I of the form.

SECTION J - SIGNATURES

- Print or type names in the spaces provided and sign. The Head should sign for the department and the Dean/Director for the faculty/college/school. In cases where there is more than one faculty/school involved, the form should be co-signed by the Deans/Directors of the faculties/colleges/schools involved, or a supporting statement should be provided.

VII. COMPLETING THE UNDERGRADUATE PROGRAM MODIFICATION FORM

- Complete a program modification form where:
 - course or curriculum changes proposed by your unit or by another faculty/college/school lead to program modifications in your unit, including but not limited to, changes to required or elective courses in a program;
 - a program is restructured or the credit hour system is revised, resulting in changes to credit hours for a large number of courses;
 - the unit is proposing a change to the name of a program.
- **Units are strongly encouraged to contact the Associate Registrar and Director of Academic Support, Office of the Registrar and Enrolment Services (ORES), regarding proposed program modifications, prior to submitting these to the SCCCC, to test the technical requirements of the modified program.**
- Information on the approval process for **major amendments** to, or **major expansion** of, an existing program is available on the webpage of the Provost and Vice-President (Academic) http://umanitoba.ca/admin/vp_academic/academic_programs/3722.html.
- Information on additional documentation required for proposals for substantial amendments to, or major expansion of, an existing program can be found on [page 2](#) of these Guidelines.
- Units are strongly encouraged to consult with the Deputy Provost (Academic Planning and Programs), the Academic Programs Specialist (Office of the Provost and Vice-President (Academic)), the Associate University Secretary (Senate) (Office of the University Secretary), and/or the University Budget Officer, as appropriate, at the outset of planning for substantial revisions to an existing program.

SECTION A – FACULTY/COLLEGE/SCHOOL AND DEPARTMENT

- Use the drop-down lists to indicate the faculty/college/school and department proposing the course deletion. Indicate the program where there is no department (e.g. Canadian Studies, Environmental Design). The Université de Saint-Boniface is considered a faculty.
- **Provide the name of the program** in the space provided, including the credential and discipline (e.g. B.Sc. in Agriculture; B.Sc. in Engineering (Civil); B.Sc. (Hons.) in Physics and Astronomy – Astronomy (Option A)).
- **Changes Take Effect** – Use the drop-down list to select the next ensuing Fall Term and Year (normally) or to request a different term. Requests for exceptions may be noted manually on the form, in the first line of the next form field, in Section B.

SECTION B – DESCRIPTION OF PROGRAM MODIFICATION

- Provide a brief description of the proposed program modification. Include the same description on the summary sheet to be included at the beginning of the submission to SCCCC. (Limit – 200 words)
- For substantial program modifications, [see Section II – Proposals for Substantial Program Modifications](#), on page 2.

SECTION C – RATIONALE

- Use the check box to indicate where a program modification responds to a recommendation in an external undergraduate program review.
- Provide a brief rationale for the proposed program modification. (Limit- 150 words)_____

SECTION D – ACADEMIC CALENDAR CONTENT

Attach a revised program description, including program charts and any other Academic Calendar content that would require updates to reflect course and curriculum changes. Beginning with the program description as it appears in the current Academic Calendar, clearly indicate proposed changes using strikethrough font (e.g. ~~strikethrough~~) to indicate content that is to be deleted and **bold font** to indicate content that is to be added. [See Appendix III for examples.](#)

SECTION E – STATEMENT OF CHANGES TO COSTS, WORKLOAD, AND/OR SUPPLIES

- Provide a statement of changes to costs if there is a change in any of the following:
 - Workload of academic or support staff or reassignment of workload from one faculty/school to another.
 - Requirements for additional space, renovations to existing space or changes in the usage of space.
 - Costs of supplies and expenses including any specific media/technology requirements associated with the teaching of the course.
- The [SPPC Program Proposal Budget Form](#) must be completed if the proposed changes involve a request for new resources.

SECTION F – CONSULTATION WITH OTHER UNITS THAT MIGHT BE AFFECTED BY CHANGES

- Indicate whether the proposed program modification leads to program modifications in other academic units. In the space provided, list all of the programs affected, separated by a semicolon. Be as specific as possible, identifying the programs by the credential and academic unit.
- If the course modification leads to program changes in other academic units, attach the form Statement of Support: Part A -Request for Action and any responses received (Part B). See Section VIII Completing the Form Statement of Support: Request for Action.
- Proposals for program modifications that would have impacts in other units, should be brought forward for the Fall deadline for SCCCC or SPPC, as appropriate. Academic units initiating such changes are **required** to advise other affected units of the proposed changes, including an indication of the term the change would take effect, so other units have an opportunity to submit corresponding changes to the SCCCC **for the same Fall deadline**, *ideally*, or the next ensuing Spring deadline.
- [See Section IV](#) above (page 6) for instructions on identifying impacted courses and programs.

SECTION G – SUPPORTING DOCUMENTATION ATTACHED

- Use the check boxes to indicate the supporting documents attached to the program modification form. Check all boxes that apply. [See Section IX](#) Other Supporting Documentation.

SECTION H – SIGNATURES

- Print or type names and sign in the spaces provided. The Head should sign for the department and the Dean/Director for the faculty/college/school. In cases where there is more than one faculty/college/school involved, the form should be co-signed by the Deans/Directors of the faculties/colleges/schools involved, or a supporting statement should be provided.

VIII. COMPLETING THE FORM - STATEMENT OF SUPPORT – REQUEST FOR ACTION

- A statement of support from other departments/faculties/colleges/schools is required for curriculum or course changes (including program proposals) where:
 - there is possible curricular overlap or infringement or conflict of jurisdiction;
 - courses/programs in other units would be affected by a proposed curriculum or course change in your unit;
 - there is a request for assessment of a course that is intended to satisfy either the Written English (W) or Mathematics (M) requirement (See Section IX Other Supporting Documentation);
 - there is a request for a new or modified course to be assessed for inclusion on the Recommended Introductory Course List (RIC List). See Section IX Other Supporting Documentation.
- Part A (Sections A through D) and Part B (Section F) of the form are to be completed by the unit requesting a statement of support. A copy of the form, with these sections completed, is to be provided to each unit from which a statement of support is sought, along with any supporting documentation that might be required, for example, course descriptions and course outlines, as appropriate, for new or modified courses.
- One copy of the completed form (Part A – Sections A through D) plus any statements of support received from the other units (Part B – Sections F through J) are to be submitted with your faculty/college/school's submission to SCCCC.

SECTION A - FACULTY / COLLEGE / SCHOOL AND DEPARTMENT

- Use the drop-down lists to indicate the faculty/college/school and department requesting the statement of support. Indicate the program where there is no department (e.g. Canadian Studies, Environmental Design). The Université de Saint-Boniface is considered a faculty.

SECTION B – REASON FOR REQUEST FOR SUPPORT

- Use the check boxes (check all boxes that apply) to indicate what the request for a statement of support relates to:
 - possible curricular overlap or infringement or conflict of jurisdiction with other units;
 - possible course/program changes in other units arising from proposed course/program changes in your unit;
 - possible impact on demand (increased or decreased) for specific courses in other units;
 - a request for assessment of a course intended to satisfy the Written English (W) requirement, the Mathematics (M) requirement, inclusion on the RIC List (see below).
- Indicate the SCCCC deadline that your unit will meet. Check the relevant check box to select either the Fall or the Spring deadline.
- Indicate the date on which the request for support – Part A was sent to the unit(s) receiving the form in the space provided.
- Specify the date by which your unit requires a response from the other units. Units requesting a statement of support should allow a minimum of four (4) weeks for the other unit(s) to respond. The absence of a response should not be understood to be an indication of support.

Written English (W) and mathematics (M) requirements: Proposals for new and modified courses intended to satisfy the Written English (W) or the Mathematics (M) requirement must be reviewed and accepted by the review committee within the Department of English, Theatre, Film & Media or the Department of Mathematics, as appropriate. The review must be completed prior to submitting the course introduction/modification to the SCCCC. Submissions to the appropriate departmental review committee must include the course introduction/modification form and a two-page course outline and should be sent to the attention of the appropriate Department Head.

The criteria for identification of courses as satisfying the University Written English (W) and Mathematics (M) requirements are available at http://umanitoba.ca/faculties/arts/media/Criteria_for_English-Math.pdf.

Recommended Introductory Course List (RIC List): New and modified 1000- and 2000- level courses without prerequisites that are to be included on the RIC List must be reviewed and accepted for inclusion on the list by the Executive Director, Student Engagement and Success. The review must be completed prior to submitting the course introduction/modification to the SCCCC. Submissions must include the course introduction/modification form and two-page (maximum) course outline and should be sent to the Executive Director, Student Academic Success, who will review requests on an ongoing basis.

Faculties/colleges/schools are also required to notify the Executive Director, Student Engagement and Success and the SCCCC when a course is to be removed from the RIC List. Such notification can be provided on the course modification/deletion form, as appropriate.

SECTION C – DESCRIPTION OF PROPOSED CURRICULUM/COURSE CHANGE

Briefly describe the proposed curriculum or course change in your unit and outline the reasons for your request for support in the space provided. Be as specific as possible, including with respect to the potential impact on courses/curricula in other units. For example, SUBJ 1XXX, which is to be deleted, is used as a prerequisite in your course SUBJ 2XXX or is required/used as an elective in your degree program (indicate credential and discipline).

Attach any supporting documentation that might be required to describe the proposed course/program change proposed by your unit.

SECTION D – UNIT(S) RECEIVING STATEMENT OF SUPPORT: REQUEST FOR ACTION

List all of the faculties/colleges/schools/departments solicited for a statement of support in the space provided.

SECTION E – STATEMENT(S) OF SUPPORT RECEIVED

One copy of the Statement of Support: Part A – Request form is to be included in your unit's submission to SCCCC, together with all of the responses received from other units (Statement of Support: Part B – Response).

SECTION F – UNIT REQUESTING SUPPORT

- To be completed by the unit requesting a statement of support.
- Units asked to provide a statement of support should do so in a timely way, to facilitate the curriculum review processes within both units as well as the SCCCC review process.
- Use the drop-down lists to indicate the faculty/college/school/University 1 and department (or program – e.g. Canadian Studies Program, Labour Studies Program) requesting the statement of support.

SECTION G – UNIT RESPONDING TO REQUEST

- To be completed by the unit responding to a request for a statement of support.
- Use the drop-down lists to indicate the faculty/college/school/University 1 and department (or program – e.g. Canadian Studies Program, Labour Studies Program) responding to the request for a statement of support. The Université de Saint-Boniface is considered a faculty.

SECTION H – RESPONSE TO REQUEST

- To be completed by the unit responding to a request for a statement of support.
- In the space provided, indicate whether your unit does/does not support the proposal and briefly outline the rationale.

SECTION I – IMPACT ON COURSES/PROGRAMS IN UNIT RESPONDING AND NEXT STEPS

- To be completed by the unit responding to a request for a statement of support.
- List the courses/programs in your unit that would be impacted by the curriculum/course change being proposed.
- Indicate the course/curriculum changes that your unit would be required to make, as a result.
- Indicate when your unit will submit those course/curriculum changes to the SCCC for Senate approval (e.g. Fall 2021 or Spring 2022). Normally, this would be the next Fall or Spring submission deadline, as specified in the SCCC Timetable for Submissions (<http://umanitoba.ca/governance/#meeting-schedules>) and, ideally, it would be submitted for the same SCCC deadline that the unit prompting the change will meet.

SECTION J – SIGNATURES

- Print or type names and sign in the spaces provided. The Head should sign for the department and the Dean/Director for the faculty/college/school. In cases where there is more than one faculty/college/school involved, the form should be co-signed by the Deans/Directors of the faculties/colleges/schools involved, or a supporting statement should be provided.

IX. OTHER SUPPORTING DOCUMENTATION

1. Course outline – required for all course introductions

A two (2) page (*maximum*) outline including:

- the course name, subject code, and course number
- a statement of course objectives
- a statement of course format, including lecture, laboratory, and tutorial hours per week
- a list of topics to be covered in lectures
- a statement on grading and evaluation, including information on the grading scheme, and a brief description of laboratories, tutorials, and assignments, including the weightings of the various types of assessments
- required textbook(s)/readings, if applicable

Course outlines are provided to SCCC for information, to provide additional information on the manner in which the course content set out in the course description will be delivered and evaluated. The committee recognizes that course outlines will be subject to future changes by the instructor and the department/faculty/school.

2. Library statement: A statement from the subject librarian must accompany all proposals for new courses. The Library must be provided with a course outline as described above. As well, the proposing unit and the subject librarian should discuss and agree upon the bibliography to be used in assessing the strength of the Library's collection in the field. In the case of topics courses, departments are not required to provide the Library with a detailed bibliography but must provide a summary of the topics that might be covered in the course. The Library will need at least one month's notice of course proposals in order to prepare the statement. Additional time will be required for program proposals or for significant program modifications involving multiple course changes.

A library statement may not be required for the following types of courses: studio, ensemble, practicums, co-operative, field work, and work terms. A library statement is required for topics courses. Please consult with the Library to confirm whether or not a library statement is required.

X. Contacts for Questions re SCCC Forms / Curriculum and Course Change Processes

Shannon Coyston, Associate University Secretary (Senate), Office of the University Secretary (shannon.coyston@umanitoba.ca; 204-474-6892)

- Contact for questions about how to complete the forms, prepare faculty/college/school submissions to SCCC, or governance process (i.e approvals required), including the curriculum and course change process.
- Contact with requests to discuss/review proposed program changes, including major program changes and the documentation required.
- Please contact prior to submitting the proposals to your department/faculty/college council.

Sharon Bannatyne, Associate Registrar and Director of Academic Support, Office of the Registrar and Enrolment Services (ORES) (sharon.bannatyne@umanitoba.ca; 204-480-1476)

- Contact for questions and advice on how program introductions and modifications can be supported in Aurora and our degree audit system (UM Achieve).

Gloria Saindon, Calendar Coordinator, ORES (gloria.saindon@umanitoba.ca; 204-480-1088)

- Contact to confirm subject codes and course numbers for introductions; for assistance with restrictions, prerequisites/corequisites, or other matters related to how courses are entered in Banner and the Academic Calendar; and to identify impacts of course and curriculum changes on other courses and programs.

Cassie Davidson, Academic Program Specialist, Office of the Provost and Vice-President (Academic) (Cassandra.davidson@umanitoba.ca; 204-474-7847)

- Contact to request program proposal forms; to discuss or review plans/draft proposals for new programs, including new credentials/degrees, majors in existing degrees, and concentrations, and timelines for obtaining required approvals and implementation; for information on major amendments to, or expansion of, existing programs.
- Please also contact for other program related matters, such as suspension of admissions to a program, closure of programs, or the development of articulation agreements or other types of agreements with partner institutions that directly involve academic programs.
- If you would like Cassie to review draft proposals, please contact prior to submitting the proposals to your department/faculty/college council.

SUMMARY SHEET: EXAMPLES**Faculty of Agricultural and Food Sciences** (Example of departmentalized unit)Agriculture, General

Deletions:

AGEC 3510 Agroecology 3 cr	-3.0
AGEC 4550 Project in Agroecology 6 cr	-6.0
AGRI 1500 Natural Resources and Primary Agricultural Production 3 cr	-3.0
AGRI 1510 Production, Distribution and Utilization of Agricultural Products 3 cr	-3.0
AGRI 2190 Toxicology Principles 1.5 cr	-1.5

Introductions:

AGRI 1600 Introduction to Agrifood Systems 3 cr	+3.0
AGRI 2400 Experimental Methods in Agricultural and Food Sciences 3 cr	+3.0
AGRI 2500 Managing Farm Safety 3 cr	+3.0
AGRI 4100 Current Issues in Agricultural Systems 3 cr	+3.0

NET CHANGE IN CREDIT HOURS: -4.5

Modification:

AGEC 2370 Principles of Ecology 3 cr	0.0
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Program modifications:

The Faculty is proposing a program modification to the following degree programs, to eliminate the Faculty Core: Bachelor of Science in Agribusiness, Bachelor of Science in Agriculture, Bachelor of Science in Agroecology, Bachelor of Science in Food Sciences. The faculty is also proposing the deletion of a list of Biosystems Engineering (BIOE) courses open to students registered in various degree programs offered by the Faculty of Agricultural and Food Sciences and to non-Agriculture students.

Animal Science

Deletions:

ANSC 2530 Nutritional Toxicology 1.5 cr	-1.5
ANSC 4540 Monogastric Production Systems 3 cr	-3.0
ANSC 4560 Issues in Animal Agriculture 3 cr	-3.0

Introduction:

ANSC 4640 Swine Production Systems 3 cr	+3.0
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NET CHANGE IN CREDIT HOURS: +4.5

Modifications:

ANSC 2500 Animal Production 3 cr	0.0
ANSC 2540 Companion Animal Nutrition and Management 3 cr	0.0
ANSC 3530 The Animal and Its Environment 3 cr	0.0
ANSC 4550 Avian Production Systems 3 cr	0.0

Food and Human Nutritional Sciences

Deletions:

FOOD 4120 Food Science Seminar 3 cr	-3.0
HNSC 4160 Seminar in Foods and Nutrition 3 cr	-3.0

Continued on next page...

Introductions:

FOOD 4100 Current Issues in Food and Human Nutrition 3 cr	+3.0
HNSC 4100 Current Issues in Food and Human Nutrition 3 cr	+3.0

NET CHANGE IN CREDIT HOURS: -0

Modifications:

FOOD 4510 Food Product Development 3 cr	0.0
HNSC 1210 Nutrition for Health and Changing Lifestyles 3 cr	0.0
HNSC 2000 Research Methods and Presentation 3 cr	0.0
HNSC 3260 Food Quality Evaluation 3 cr	0.0
HNSC 4280 Food Product Development 3 cr	0.0

Program modifications:

The Faculty is proposing program modifications to the following degree programs, to eliminate the Faculty Core: Bachelor of Science in Food Science, including with the Co-operative Education Option, Bachelor of Science in Food Science – Food Science Option, Bachelor of Science in Food Science – Business Option.

Faculty of Music (Example of departmentalized unit, which would also require SPPC review.)

Deletions:

MUSC 1182 Jazz Ensemble 1 2 cr	-2.0
MUSC 1192 Jazz Rhythm Performance Techniques 2 cr	-2.0
MUSC 3182 Jazz Ensemble 3 2 cr	-2.0
MUSC 3442 Jazz Pedagogy 1 2 cr	-3.0
MUSC 4112 Jazz Composition and Arranging 2 3 cr	-3.0

Introductions:

MUSC 1386 Jazz Musicianship 1 2 cr	+2.0
MUSC 1388 Jazz Musicianship 2 2 cr	+2.0
MUSC 1184 Jazz Ensemble 2 cr	+2.0
MUSC 2194 Jazz Improvisation 2 3 cr	+3.0
MUSC 3126 Jazz Composition and Arranging 2 3 cr	+3.0
MUSC 3194 Jazz Improvisation 3 3 cr	+3.0
MUSC 4184 Jazz Ensemble 2 cr	+2.0
MUSC 4194 Jazz Improvisation 4 3 cr	+3.0
MUSC 4564 Jazz Recital 2 3 cr	+3.0

NET CHANGE IN CREDIT HOURS: +11.0

Modifications:

MUSC 1190 Ensemble 2 cr	0.0
MUSC 2384 Musicianship 3 2 cr	0.0
MUSC 4190 Ensemble 2 cr	0.0

Program modifications:

The faculty is proposing program modifications to the Bachelor of Music, including the General, Performance, Composition, and History concentrations, the Bachelor of Music / Bachelor of Education (Integrated Music Education Program), and the Bachelor of Jazz Studies program in order to: establish a common first year for all students; introduce greater flexibility; clarify curricular structures; eliminate redundancies and gaps; improve balance between academic and performance-based student activities.

FORMAT FOR COURSE DESCRIPTIONS:**Examples of laboratory requirement:**

MATH 2130 Engineering Mathematical Analysis 1 3 cr

(Lab required) Multivariable differential and integral calculus up to and including multiple integrals in cylindrical and spherical coordinates. For Engineering and Geophysics students only. May not be held with MATH 2720, MATH 2750, or the former MATH 2110.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: MATH 1210 or MATH 1211 and MATH 1710.

SPAN 1272 Intermediate Spanish Grammar and Conversation 2 3 cr

(Lab required) This course is the second of the intermediate Spanish language sequence. Focus is on continued development of intermediate skills in reading, writing, speaking and listening. The primary goals are to further enhance communicative competence and social and cultural awareness of the Spanish-speaking world. Not open to students with native oral fluency. Students may not hold credit for SPAN 1272 and any of: SPAN 1273 or SPAN 1280 or SPAN 1290 or the former SPAN 1270 or the former SPAN 1271 or the former SPAN 1271 or the former TRAD 1271.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: [SPAN 1262 or SPAN 1263 or the former SPAN 1260 or the former SPAN 1261 or the former TRAD 1261] or written consent of instructor or department head.

Examples of field trip requirement:

AGRI 1600 Introduction to Agrifood Systems 3 cr

(Lab required) This course explores agricultural production systems with special focus on the Canadian Prairies. Students will develop scholarly, social, communication and professional skills that will enable them to be successful in the application of technical knowledge to food production challenges. [This course will include a field trip component.](#) May not be held with the former AGRI 1500.

DAGR 0490 Applied Farm Management 3 cr

An introduction to an objectives-driven plan that deals with production and financial management. Students will generate and analyze enterprise budgets and financial statements. Students will be required to attend interview sessions outside of scheduled classes with an assigned Farm Management Advisor. The Advisor will support students as they apply their management skills and knowledge to a real farm business or a case farm. [There will be three full day field trips.](#) May not be held with the former DAGR 0680.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: DAGR 0480 and ABIZ 0460. Pre- or Corequisite: ABIZ 0470.

NATV 2220 Indigenous Societies and the Political Process 3 cr

An analysis of contemporary Canadian (and U.S.) political and administrative processes as they affect Indigenous people. [Depending on instructor, this course may have a weekend field trip.](#) Contact the Department of Native Studies for details.

Examples of prerequisites and pre-or corequisites, including minimum grade requirement, use of brackets:

BIOL 4100 Honours Thesis 6 cr

The student will conduct a research project, chosen in consultation with a Biological Sciences faculty member acting as an advisor, and produce a thesis in which the project, the results and conclusions are presented. The student will defend the thesis at an oral examination held on completion of the thesis. This course is restricted to 3rd and 4th year Honours Biological Science students.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: BIOL 3100 or consent of department.

CHEM 2360 Biochemistry 1: Biomolecules and an Introduction to Metabolic Energy 3 cr

(Lab required) An introductory course dealing with kinds of molecules encountered in biochemistry, and the concept of metabolic energy as a product of catabolism and a requirement for biosynthesis. This course is also given in Microbiology as MBIO 2360. May not be held with CHEM 2361, CHEM 2770, MBIO 2360, MBIO 2361, or MBIO 2770.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: CHEM 1310 or CHEM 1311 (C+); and one of BIOL 1030, BIOL 1031.

GEOL 4380 Mineral Resource Development 3 cr
Examination of economic, political, social, and environmental considerations that affect exploration and mining activity.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: GEOL 3130 (C+). Pre- or co-requisite: GEOL 4300.

MATH 2130 Engineering Mathematical Analysis 1 3 cr
(Lab required) Multivariable differential and integral calculus up to and including multiple integrals in cylindrical and spherical coordinates. For Engineering and Geophysics students only. May not be held with MATH 2720, MATH 2750, or the former MATH 2110.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: MATH 1210 or MATH 1211 and MATH 1710.

MATH 3490 Optimization 3 cr
(Lab required) This course introduces the theory and practice of optimization. Both unconstrained and constrained problems are considered, as well as continuous and discrete optimization. Topics include linear programming, unconstrained optimization, constrained nonlinear optimization and integer programming. Applications to Statistics and Data Science will be explored.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: [one of MATH 2090, MATH 2091, MATH 2740, the former MATH 2300, the former MATH 2301, the former MATH 2350, or the former MATH 2352] and [one of MATH 2150, MATH 2151, MATH 2720, MATH 2721, or the former MATH 2750].

MIS 4250 Advanced Topics in Management Information Systems 3 cr

A study of current issues in MIS. The topics for this course will vary over time, depending on student interests, faculty interests, and student demand. Not offered every year.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: consent of instructor.

Examples of equivalent and mutually exclusive courses:

CHEM 2360 Biochemistry 1: Biomolecules and an Introduction to Metabolic Energy 3 cr
(Lab required) An introductory course dealing with kinds of molecules encountered in biochemistry, and the concept of metabolic energy as a product of catabolism and a requirement for biosynthesis. This course is also given in Microbiology as MBIO 2360. **May not be held with CHEM 2361, CHEM 2770, MBIO 2360, MBIO 2361, or MBIO 2770.**

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: CHEM 1310 or CHEM 1311 (C+); and one of BIOL 1030, BIOL 1031.

Equivalent courses: CHEM 2361, MBIO 2360, MBIO 2361

Mutually Exclusive: CHEM 2770, CHEM 2860, MBIO 2770

GEOG 2900 Geography of Canadian Prairie Landscapes (A) 3 cr

This course introduces students to the various geographical themes, concepts and processes within the context of the natural and anthropogenic development of the Canadian prairie region. It traces the evolution of the prairie landscape. It will focus on academic writing in the discipline. **May not be held with GEOG 2450.**

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: a grade of C or better in a minimum of three credit hours from Geography courses numbered at the 1000 level, or permission of department head.

Mutually Exclusive: GEOG 2450

STDO 2810 Introduction to Performance Art 3 cr

An introduction to the language and form of performance art, including live performance, performance-based installation, and interactive and relational performances. **May not be held with STDO 3680 when titled "Introduction to Performance Art."**

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: Successful completion of 21 credit hours of 1000-level STDO courses.

Mutually Exclusive: STDO 3680 when titled "Introduction to Performance Art"

Examples of topics courses:

ENG 4100 Contemporary Topics in Engineering Practice 3 cr

This course will cover contemporary topics relating to the practice of professional engineering. The specific topics and a detailed outline will be available prior to the start of the registration period for the session in which the course will be offered. [As the course content will vary from year to year, students may take this course more than once for credit.](#)

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: Permission of the Centre for Engineering Professional Practice and Engineering Education.

LAW 3980 Current Legal Problems B 3 cr

Critical and constructive study, at an advanced level, of a significant major subject or set of topics.

MIS 4250 Advanced Topics in Management Information Systems 3 cr

A study of current issues in MIS. The topics for this course will vary over time, depending on student interests, faculty interests, and student demand. Not offered every year.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: consent of instructor.

SOC 4530 Readings in Sociology 3 cr

A reading course for undergraduates and pre-Master's in sociology. [The course content may vary. Students can earn multiple credits for this course only when the topic subtitle is different.](#)

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: written consent of department head.

Example of pass/fail grading mode:

KIN 4910 Athletic Therapy Practicum 6 cr

To provide clinical and on-field internship experiences on campus and in the community for prospective Athletic Therapy candidates. May not be held with PHED 4910. [Evaluated pass/fail.](#)

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: KIN 3914 (KIN 3910, PHED 3910) and KIN 3400 and KIN 3320.

LAW 2650 Introduction to Advocacy 3 cr

A detailed study of the conduct of a case from its inception through to trial. The course requires that students prepare and conduct a trial. Grading: Pass/Fail.

NURS 3542 Nursing Practice 4 4 cr

This course enables students to demonstrate clinical competence by applying the theoretical knowledge and simulation skills covered in Year 3 Term 2 courses in the practice setting. May not be held with the former NURS 3300, the former NURS 3310, or the former NURS 4270. Registration is normally restricted to students in Year 3 of the program. [This course is graded on a pass/fail basis.](#)

PR/CR: A minimum grade of C is required unless otherwise indicated.

Pre- or corequisites: NURS 3514, NURS 3550, NURS 3560 and NURS 3532.

Example of registration restrictions:

BIOL 4100 Honours Thesis 6 cr

The student will conduct a research project, chosen in consultation with a Biological Sciences faculty member acting as an advisor, and produce a thesis in which the project, the results and conclusions are presented. The student will defend the thesis at an oral examination held on completion of the thesis. [This course is restricted to 3rd and 4th year Honours Biological Science students.](#)

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisite: BIOL 3100 or consent of department.

HEAL 3000 Introduction to Social Epidemiology 3 cr

This course provides an overview of the basic concepts, principles and methods of social epidemiology and their applications for research and practice from a human ecology perspective. Applications to social determinants of

health across the life course may include but are not limited to income and food security, early child development and others. May not be held with the former HMEC 3000. [Restricted to students registered in the Rady Faculty of Health Sciences, Max Rady College of Medicine, or Faculty of Agricultural and Food Sciences.](#)

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: HNSC 2000 (or PSYC 2250 or the former HMEC 2000 or the former HMEC 2050) and HEAL 2600 (or the former HMEC 2030).

MECH 4162 Thesis 6 cr

The course will give students the opportunity to gain a research or design experience in their area of interest. Thesis topics must be approved by the head of the department or designate. [This course is restricted to students in Year 4 Mechanical Engineering.](#) Not to be held for credit with MECH 4160.

PR/CR: A minimum grade of C is required unless otherwise indicated.

Prerequisites: ENG 2010 and eligible to graduate.

NURS 2510 Client and Context 1: Human Growth and Development 2 cr

This course provides students with knowledge of normal human growth and development across the lifespan. May not be held with NURS 1260. [Registration is normally restricted to students in Year 2 of the program.](#)

RESP 2250 Ventilator Instrumentation 3 cr

This is a comprehensive course in the function, operation, and application of specified neonatal, pediatric and adult ventilators. Illustration of the necessary skills to setup, monitor and troubleshoot the ventilator will be examined in the classroom as well as in simulated patient case scenarios. [This course is restricted to students registered in year two of the Bachelor of Respiratory Therapy program who have completed all the required courses for year one of the program.](#)

EXAMPLES OF DESCRIPTIONS OF PROGRAM MODIFICATIONS:**Revisions to Bachelor of Science (Honours) in Actuarial Mathematics****4.1.2 Actuarial Mathematics Program Chart**

YEAR 1	YEAR 2	YEAR 3	YEAR 4
HONOURS ACTUARIAL MATHEMATICS 120 CREDIT HOURS			
ECON 1010*, ECON 1020* MATH 1220 ¹ , MATH 1230 ¹ , MATH 1232 ¹ , MATH 1240 STAT 1150 ¹ , STAT 2150	ACT 2020, ACT 2120, ACT 2210 STAT 2400, STAT 3400 STAT 2800 ACC 1100 ² , FIN 2200 ² MATH 2720 MGMT 2010 ⁴	ACT 3630 (or both ACT 3130 and ACT 3230), ACT 3340, ACT 4020 ³ , ACT 4030 ³ STAT 3050, STAT 3800 STAT 3030, STAT 3100	ACT 4010 , ACT 4060, ACT 4160 STAT 3450 ³ , STAT 3470³ , STAT 3490 ³ MSCI 2150
6 credit hours of electives	3 credit hours of electives	9 credit hours of electives ⁵	15 12 credit hours of electives ⁵
30Hours	30 Hours	30 Hours	30 Hours
JOINT STATISTICS - ACTUARIAL MATHEMATICS HONOURS: See Section 4.13.3			
NOTES:			
¹ The following substitutions are allowed: MATH 1300 (C) or MATH 1310 in place of MATH 1220 (C), MATH 1500 (B) or MATH 1510 (B) in place of MATH 1230 (C), MATH 1700 (B) or MATH 1710 (B) in place of MATH 1232 (C), STAT 1000 (C) and STAT 2000 (B) in place of STAT 1150.			
² Students are strongly urged to complete ACC 1100 in Year 1 when possible. FIN 2200 may be taken in Year 2, 3 or 4; however, it is strongly recommended that it be completed in Year 2. Note that ACC 1100 is a prerequisite for FIN 2200.			
³ STAT 3470 , STAT 3450, STAT 3490, ACT 4020 and ACT 4030 may be taken in Year 3 or 4.			
⁴ MGMT 2010 fulfills the written English requirement.			
⁵ It is recommended that electives in Year 3 and Year 4 be chosen from Actuarial Mathematics, Business courses, Computer Science, Economics, Mathematics (3000 or 4000 level) and Statistics (4000 level courses). Other electives may be selected through consultation with the program director. Examples include: Year 3: FIN 3410, FIN 3450, FIN 3480, MSCI 3400, STAT 3480 , STAT 3150 , STAT 3550 , STAT 3690 . Year 4: FIN 4240, STAT 4100, STAT 4200 , STAT 4520 , STAT 4530 , STAT 4150 , STAT 4250 , STAT 4630.			

Revisions to Minor (Concentration) in Latin American Studies

A Minor (Concentration) in Latin American Studies consists of at least 18 credit hours from a minimum of two different departments chosen from the following list.

Anthropology

ANTH 2690	Peoples and Cultures of Contemporary Latin America	3
ANTH 2990	Prehispanic Cultures of Mexico	3

Economics

ECON 3390	Development Economics	6
ECON 3392	An Introduction to Development Economics	3
ECON 3394	Development Economics: Problems and Policies	3

History

HIST 2140	Colonial Latin America (A)	3
HIST 2150	Independent Latin America (A)	3
HIST 3020	South America Since 1945 (A)	3

Spanish

SPAN 2200	Spanish American Culture and Civilization	3
SPAN 2210	Voices and Images of Latin America	3
SPAN 2540	Spanish-American Literature 2	3
SPAN 3080	Contemporary Latin American Novel	3

Electrical Engineering Courses Requirements

ANTH 2430	Ecology, Technology and Society	3
CHEM 1300	Structure and Modelling of Chemistry	3
CIVL 4050	Engineering Economics	3
COMP 1012	Computer Programming for Scientists and Engineers	3
ENG 1430	Design in Engineering	3
ENG 1440	Introduction to Statics	3
ENG 1450	Introduction to Electrical and Computer Engineering	3
ENG 1460	Introduction to Thermal Sciences	3
ENG 2010	Technical Communications	3
ENG 2030	Engineering Communication: Strategies for the Profession	3
or		
ENG 2040	Engineering Communication: Strategies, Practice, and Design	3
ENGL 1400	Thematic Approaches to the Study of Literature (or equivalent)	3
MATH 1210	Techniques of Classical and Linear Algebra	3
MATH 1510	Applied Calculus 1 (or equivalent)	3
MATH 1710	Applied Calculus 2 (or equivalent)	3
MATH 2130	Engineering Mathematical Analysis	3
MATH 2132	Engineering Mathematical Analysis 2	3
MATH 3132	Engineering Mathematical Analysis 3	3
PHIL 1290	Critical Thinking**	3
PHYS 1050	Physics 1: Mechanics	3
PHYS 2152	Modern Physics for Engineers	3
STAT 2220	Introduction to Probability and Statistics	3
ECE 2160	Electronics 2E	5
ECE 2220	Digital Logic Systems	5
ECE 2240	Numerical Methods for Electrical Engineers	4
ECE 2262	Electric Circuits	4
ECE 3540	Advanced Circuit Analysis and Design	4
ECE 3580	Foundations of Electromagnetics	4
ECE 3590	Electromagnetic Theory	4
ECE 3600	Physical Electronics	4
ECE 3610	Microprocessor Systems	4
ECE 3670	Electronics 3E	4
ECE 3720	Electric Power and Machines	4
ECE 3730	Principles of Embedded Systems Design	4
ECE 3780	Signal Processing 1	4
ECE 4150	Control Systems	4
ECE 4260	Communication Systems	4
ECE 4600	Group Design Project	6

Plus 1 Complementary Studies Elective.

Plus 1 Natural Science from the approved list of electives.

Plus 7 Technical Electives from the approved list.

** PHIL 1290 Critical Thinking is the recommended complementary studies elective. However, students may select any course from the Faculty of Arts or the Faculty of Management at the 1000 level or above, with the exception of ARTS 1110 Introduction to the University which may not be held for credit within the Faculty of Engineering.

Electrical Engineering: Standard Program Electrical Electives

Program Requirements:

In the standard Electrical Engineering program, seven Technical Elective Courses are required. At least 4 must be taken from the Group A list shown below. The remainder can be either from the below Group A or B lists.

GROUP A TECHNICAL ELECTIVE COURSES: (4 required)

ECE 3650 Electric Machines
 ECE 4100 Microelectronic Fabrication
 ECE 4140 Power Transmission Lines
 ECE 4160 Control Engineering
 ECE 4180 Introduction to Robotics
 ECE 4200 Electric Filter Design
 ECE 4250 Digital Communications
 ECE 4270 Antennas
 ECE 4280 Engineering Electromagnetics
 ECE 4290 Microwave Engineering
 ECE 4300 Electrical Energy Systems 1
 ECE 4310 Electrical Energy Systems 2
 ECE 4360 High Voltage Engineering
 ECE 4370 Power Electronics
 ECE 4390 Engineering Computations 3E
 ECE 4420 Digital Control
 ECE 4580 Optoelectronics
 ECE 4610 Biomedical Engineering and Instrumentation
 ECE 4830 Signal Processing 2
 ECE 4860 Biomedical Optics
 ECE 4860 Design of RF Devices and Wireless Systems

GROUP B TECHNICAL ELECTIVE COURSES:

ECE 3700 Telecom Networking
 ECE 3760 Digital System Design 1
 ECE 3770 Digital System Design 2
 ECE 4240 Microprocessor Interfacing
 ECE 4440 Computer Vision
 ECE 4520 Simulation & Modelling
 ECE 4530 Parallel Processing
 ECE 4540 Wireless Networks
 ECE 4740 Digital System Implementation
 ECE 4850 Performance Evaluation for Communications & Computer Eng.
 ECE 4860 Materials Characterization
 COMP 2140 Data Structures and Algorithms
 COMP 3190 Intro. Artificial Intelligence
 COMP 4180 Intelligent Mobile Robotics
 COMP 4360 Machine Learning
 MATH 3120 Applied Discrete Mathematics
~~MATH 3700 Applied Complex Analysis~~
MATH 3340 Complex Analysis 1
~~MATH 3810 Partial Differential Equations 2~~
MATH 3460 Partial Differential Equations
 PHYS 2260 Optics
 PHYS 3220 Medical Physics and Physiological Measurement
 PHYS 3640 Electro- and Magnetodynamics and Special Relativity
 PHYS 4590 Advanced Optics