Draft Minutes of the Fifth Meeting of Senate
Friday, May 12, 2023
3:00 – 5:00 pm
Alumni Hall and via Zoom

Present*:* G. Keefe (Chair), K. Mears (Vice-Chair), P. Bernard, A. Braithwaite, L. Brinklow, O. Brown, A. Campbell, D. Coll, E. Côté, R. Dennis, A. Doyle, N. Etkin, G. Evans, R. Gauthier, H. Hill, B. Linkletter, A. MacKenzie, A. MacLaren, D. MacLellan, T. Mady, N. Mannholland, W. Montelpare, D. Moses, C. Murray, S. Myers, S. Nandlal, G. F. Naterer, T. Ngo, W. Peters, R. Raiswell, S. Reijers, C. Ryan, T. Saunders, J. Sentance, B. Stoughton, D. Sutton, M. Sweeney-Nixon, J. VanLeeuwen, B. Waterman, A. Zinck

Regrets: M. Arfken, M. Buote, T. Carroll, J. Podger

Recorder: S. O'Connor

President Keefe called the meeting to order at 3:04 pm and provided a land acknowledgement.

He recognized the Senate's progress in fostering respectful academic discussions over the past year and expressed hope for a stronger, more harmonious Senate in the fall, emphasizing the need for improved relationships, especially between University faculty and the administration.

President Keefe acknowledged that in the previous Senate meeting he, as Chair, had interrupted a Senator for straying off-topic from the agenda and academic matters. He acknowledged experiencing a moment of frustration and consequently recognizes the importance of incorporating kindness and patience into his communication approach.

Because Senate requires a meeting space that is large enough to comfortably accommodate both Senators and guests, President Keefe shared that the Steering and Nominating Committee has looked for alternative space on the main part of campus.

The Steering and Nominating Committee discussed ways to support a collaborative, healing process. They concluded that it would be best to have a facilitated session in the fall when Senate vacancies are filled.

He concluded his introductory comments with words of appreciation to Senate for the hard work in finding the best paths forward this year, especially getting us through the end of the semester.

President Keefe welcomed Noah Mannholland to Senate, Noah is the new Vice President of Academic and External of the UPEI Student Union.

There was a late agenda item regarding the report from the Emerita(us) Committee submitted. If approved to be added to an amended agenda, it will fall under item #3.

1. **Approval of Agenda**
   a. **MOTION (L. Brinklow/B. Waterman) to approve the agenda as amended. CARRIED.**

2. **Approval of Minutes**
   a. **March 10, 2023**
   MOTION (N. Mannholland/C. Murray) to approve the minutes of March 10, 2023 as presented. (B. Linkletter, A Braithwaite, voted against) **CARRIED.**

   B. Linkletter inquired as to why his comment was not included in the minutes.

   President Keefe responded that the agenda was complete and the meeting was adjourned. B. Linkletter asked this his comment be added to the minutes of the current meeting.

   President Keefe stated that the proper process would have been to request that his item be added to the agenda or to exercise the right to vote against the meeting minutes.

   b. **April 14, 2023**
   MOTION (/) to approve the minutes of April 14, 2023 as presented. CARRIED

MEETING MOVED TO IN CAMERA

3. **Convocation 2023**
   a. **Approval of Certificates, Diplomas and Degrees**
   The following motions were brought forward by G. Naterer and individually seconded by Senators: the 2023 Winter Semester Certificates and Degrees were approved as identified:

   OMNIBUS MOTION (G. Naterer/S. Myers) that Senate approve the credentials for the 113 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Arts. CARRIED

FACULTY OF ARTS	
Bachelor of Integrated Studies	1
Bachelor of Applied Arts in Journalism	3
Bachelor of Arts	92
Bachelor of Arts with Honours	12
Bachelor of Music	2
Bachelor of Music Education	1
Master of Arts	2
TOTAL - Faculty of Arts	**113**

OMNIBUS MOTION (G. Naterer/T. Mady) that Senate approve the credentials for the 192 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Business. CARRIED

FACULTY OF BUSINESS	1
Certificate in Business	
Certificate in Public Administration	1
Bachelor of Business in Tourism & Hospitality	7
Bachelor of Business Studies	3
Bachelor of Business Administration	166
Bachelor of Business Administration (Co-operative Education)	5
Master of Business Administration	9
TOTAL - Faculty of Business	**192**

OMNIBUS MOTION (G. Naterer/D. MacLellan) that Senate approve the credentials for the 103 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Education. CARRIED

FACULTY OF EDUCATION	
Baccalauréat en éducation—français langue seconde	18
Bachelor of Education	60
Master of Education	22
Doctor of Philosophy	3
TOTAL - Faculty of Education	**103**

OMNIBUS MOTION (G. Naterer/D. Coll) that Senate approve the credentials for the 8 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Graduate Studies. CARRIED

FACULTY OF GRADUATE STUDIES	
Master in Global Affairs	8
TOTAL - Faculty of Graduate Studies	**8**

OMNIBUS MOTION (G. Naterer/C. Murray) that Senate approve the credentials for the 57 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Nursing. CARRIED

FACULTY OF NURSING	
Bachelor of Science in Nursing	56
Master of Nursing	1
TOTAL - Faculty of Nursing	**57**

OMNIBUS MOTION (G. Naterer/N. Etkin) that Senate approve the credentials for the 229 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Science. CARRIED

FACULTY OF SCIENCE	
Bachelor of Science in Biotechnology	8
Bachelor of Science in Paramedicine	3
Bachelor of Wildlife Conservation	2
Bachelor of Science in Applied Climate Change and Adaptation	3
Bachelor of Applied Science in Radiography	6
Bachelor of Environmental Studies	12
Bachelor of Environmental Studies (Co-operative Education)	2
Bachelor of Science	156
Bachelor of Science (Co-operative Education)	7
Bachelor of Science with Honours	24
Bachelor of Science with Honours (Co-operative Education)	2
Master of Applied Health Services Research	1
Master of Science	2
Doctor of Philosophy	1
TOTAL - Faculty of Science	**229**

B. Linkletter noted that a student has what looks like a double major, in which case the chairs of both departments should be connected to that student.

D. Sutton expressed intent to investigate the capability to have both departments recognized in this manner.

OMNIBUS MOTION (G. Naterer/W. Peters) that Senate approve the credentials for the 51 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Sustainable Design Engineering. CARRIED

FACULTY OF SUSTAINABLE DESIGN ENGINEERING	
Bachelor of Science in Sustainable Design Engineering	49
Master of Science in Sustainable Design Engineering	2
TOTAL - Faculty of Sustainable Design Engineering	**51**

OMNIBUS MOTION (G. Naterer/J. VanLeeuwen) that Senate approve the credentials for the 66 candidates listed as having completed the requirement for the following degrees and/or certificates with the Faculty of Veterinary Medicine. CARRIED

FACULTY OF VETERINARY MEDICINE	
Doctor of Veterinary Medicine	65
Doctor of Philosophy	1
TOTAL - Faculty of Veterinary Medicine	**66**

ENABLING MOTION (G. Naterer/C. Murray) to empower the President, relevant Dean and Registrar, acting together in full agreement, to approve any degrees, diplomas or certificates that may surface as unexpected cases. CARRIED.

b. Professor Emerita/Emeritus Report

On behalf of the CE-US Committee, G. Naterer presented the names recommended by the committee:

MOTION (G. Naterer/B. Linkletter) to appoint Dr. Russell Kerr to emeritus status. CARRIED

MOTION (G. Naterer/S. Myers) to appoint Dr. Karem Simon to emeritus status. CARRIED

Congratulations to Dr. Kerr and Dr. Simon.

RETURN FROM IN CAMERA

4. <u>President's Report and Question Period</u>

President Keefe congratulated UPEI's Doctor of Psychology program for being granted accreditation by the Canadian Psychological Association for a term of three years. This is a major accomplishment and President Keefe acknowledged all involved in this process. He thanked Dr. Philip Smith for his leadership in this endeavor and invited Dr. Smith to say a few words.

Dr. Smith stated that this was certainly a team effort including colleagues from across campus as well as students.

President Keefe also commented on the recent draft report received from MPHEC regarding the University's quality assurance monitoring and initial feedback is overwhelmingly positive. Congratulations and thank you to Kathy Gottschall-Pass, Charlotte McCardle and Vice President Naterer for their efforts on this. This is another great accomplishment for UPEI and has been years in the making.

President Keefe shared that he recently represented UPEI at a Skills PEI Workforce day and saw an appreciation from the Island community in terms of UPEI's workforce development in the province. He also noted an appreciation for the programs that focus on knowledge development, critical thinking and communications. Employers are increasing recognizing the importance of these areas.

Panther Sport has wrapped up for the season. Many programs have had banner years both on and off the field of play. Our athletes are making a positive impact on our community, which is very important right now.

President Keefe shared statistics from Universities Canada surrounding societal opinions of universities, stating positive opinions of universities has gone from 78 per cent to 52 per cent in the last eight years. Most have moved from positive to neutral, but unfortunately there is an increasing percentage who hold a negative view of universities. Quebec has the highest support, Manitoba and Saskatchewan have the lowest. Atlantic Canada is at the national average. This erosion of support is concerning when we consider that close to 48% of our funding comes from

public dollars. Therefore, it is essential to make it a priority to celebrate our successes as a university.

In closing, President Keefe encouraged Senators to attend the upcoming convocation ceremonies to celebrate our students and their accomplishments.

G. Naterer shared the following items worth celebrating:

Great things happening in our office of Study Abroad as UPEI has reached a record number of 150 students traveling to 18 different countries for Study Abroad this year.

A sample of recently secured research grants includes Dr. Marya Ahmed in Chemistry, $15,000, Dr. Jessica Strong in Psychology, $1,500, and Dr. Larry Hammell, $7,800.

Dr. Libby Osgood has co-edited the book *Teilhard de Chardin: A Book of Hours* an edited volume of Pierre Teilhard de Chardin's most inspirational work.

President Keefe then acknowledged those Senators whose terms end next month:
John McIntyre/Jim Sentance, Bill Montelpare, Trung Ngo, Andrew Zinck, Richard Raiswell, Kim Mears, Amy Doyle.

B. Linkletter posed a question regarding an item he had requested be added to the Senate agenda that had been declined. He asked what the procedure is for accessing legal counsel for items deliberated by the Steering and Nominating Committee, who is the lawyer that is called upon, and does it cost the University.

President Keefe responded that in cases where the University Act requires interpretation, as Chair of the Steering and Nominating Committee, he is obligated to seek legal counsel. The University has Stewart McKelvey law firm on retainer for legal advice.

A. Braithwaite referred to the MPHEC quality assurance report mentioned earlier asking if the final report will be made available for everyone to read.

President Keefe responded that yes when final documents are received from MPHEC, these will be made available as per the protocols of MPHEC.

5. <u>Senate Reports</u>

a. Academic Planning and Curriculum Committee

i. Sixth Curriculum Report

1) MOTION (C. Murray/T. Mady) to withdraw the first motion of the curriculum report. CARRIED.

<u>FACULTY OF ARTS</u>

OMNIBUS MOTION (G. Naterer/S. Myers) that motions 2-13 be approved as noted below: CARRIED

2) To change the PSY 6501 course prerequisite to reflect current program expectations.
(See details in the attached Curriculum Report—Page 6)

3) **To change the PSY 7201 course prerequisite to reflect current program expectations.**
(See details in the attached Curriculum Report—Pages 7-8)

4) **To change the PSY 7202 course prerequisite to reflect current program expectations.**
(See details in the attached Curriculum Report—Pages 9-10)

5) **To change the PSY 7203 course prerequisite to reflect current program expectations.**
(See details in the attached Curriculum Report—Pages 11-12)

6) **To change the PSY 7204 course prerequisite to reflect current program expectations.**
(See details in the attached Curriculum Report—Pages 13-14)

7) **To change the PSY 7501 course prerequisite to reflect current program expectations.**
(See details in the attached Curriculum Report—Page 15)

8) **To change the PSY 8502 course prerequisite to reflect current program expectations.**
(See details in the attached Curriculum Report—Page 16)

9) **To change the course prerequisite and course description for PSY 8503 to reflect current program expectations**.
(See details in the attached Curriculum Report—Page 17)

10) **To revise the prerequisite for PSY 9000 Predoctoral Internship as proposed.**
(See details in the attached Curriculum Report—Page 18)

11) **To change the course sequence and schedule of the PsyD program updated to reflect current and future delivery.**
(See details in the attached Curriculum Report—Pages 19-23)

12) **To have the change in prerequisite for ACLC 4070: Work Integrated Practicum be approved as proposed.**
(See details in the attached Curriculum Report—Page 24)

13) **That the change in the number of required semester hours for BIS be approved as proposed.** (See details in the attached Curriculum Report—Page 24)

FACULTY OF EDUCATION

OMNIBUS MOTION (G. Naterer/D. MacLellan) that motions 14-16 be approved as noted below: CARRIED.

14) **To revise the required courses in the Primary/Elementary BEd program as submitted.**
(See details in the attached Curriculum Report—Pages 27-29)

15) **To revise the required courses in the Primary/Elementary BEd (français langue seconde) program as submitted.**
(See details in the attached Curriculum Report—Pages 30-32)

16) **To revise the admission requirements and accepted teachables for the BEd (français langue seconde) program as submitted.**
(See details in the attached Curriculum Report—Pages 33-35)

FACULTY OF SUSTAINABLE DESIGN ENGINEERING

OMNIBUS MOTION (G. Naterer/W. Peters) that motions 17-64 be approved as note below: CARRIED (Opposed, B. Linkletter).

17) **That SDE-8230 be deleted as it is no longer needed in the program.**
(See details in the attached Curriculum Report—Page 38)

18) **To approve ENGN 4020 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8020.**
(See details in the attached Curriculum Report—Pages 39-42)

19) **To approve ENGN 4021 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8021.**
(See details in the attached Curriculum Report—Pages 43-46)

20) **To approve ENGN 4030 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8030.**
(See details in the attached Curriculum Report—Pages 47-51)

21) **To approve ENGN 4031 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8031.**
(See details in the attached Curriculum Report—Pages 52-55)

22) **To approve ENGN 4040 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8040.**
(See details in the attached Curriculum Report—Pages 56-59)

23) **To approve ENGN 4050 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8050.**
(See details in the attached Curriculum Report—Pages 60-63)

24) **To approve ENGN 4060 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8060.**
(See details in the attached Curriculum Report—Pages 64-67)

25) **To approve ENGN 4061 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8061.**
(See details in the attached Curriculum Report—Pages 68-71)

26) **To approve ENGN 4062 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8062.**
(See details in the attached Curriculum Report—Pages 72-75)

27) **To approve ENGN 4063 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8063.**
(See details in the attached Curriculum Report—Pages 76-79)

28) **To approve capital ENGN 4070 as a new undergraduate course and to cross-level list it with the existing graduate level course, SDE 8070.**

(See details in the attached Curriculum Report—Pages 80-83)

29) **To approve ENGN 4080 as a new undergraduate course and to cross-level list it with the existing graduate level course, SDE 8080.**
(See details in the attached Curriculum Report—Pages 84-87)

30) **To approve ENGN 4081 there's a new undergraduate course and to cross-level listed with the existing graduate level course, SDE 8081.**
(See details in the attached Curriculum Report—Pages 88-92)

31) **To approve ENGN 4100 as a new undergraduate course and to cross-level list it with the existing graduate level course, SDE 8100.**
(See details in the attached Curriculum Report—Pages 93 to 96)

32) **To approve ENGN 4101 as the new undergraduate course into cross-level listed with the existing graduate level course, SDE 8101.**
(See details in the attached Curriculum Report—Pages 97-100)

33) **To approve SDE 8840 as a new graduate course and to cross-level listed with the existing undergraduate level course, ENGN 4840.**
(See details in the attached Curriculum Report—Pages 101-105)

34) **To remove SDE H230 as a cross-level listing to ENGN 3430.**
(See details in the attached Curriculum Report—Page 106)

35) **To cross-level list SDE 88402 ENGN 4840.**
(See details in the attached Curriculum Report—Page 107)

36) **To cross-level list ENGN 4022 SDE 8020.**
(See details in the attached Curriculum Report—Page 108)

37) **To cross-level list ENGN 40212 SDE 8021.**
(See details in the attached Curriculum Report—Page 109)

38) **To cross-level list ENGN 4030 to SDE-8030.**
(See details in the attached Curriculum Report—Pages 110-111)

39) **To cross-level list ENGN 4031 to SDE-8031.**
(See details in the attached Curriculum Report—Page 112)

40) **To cross-level list ENGN 4040 to SDE-8040.**
(See details in the attached Curriculum Report—Page 113)

41) **To cross-level list ENGN 4050 to SDE-8050.**
(See details in the attached Curriculum Report—Page 114)

42) **To cross-level list ENGN 4060 to SDE-8060.**
(See details in the attached Curriculum Report—Page 115)

43) **To cross-level list ENGN 4061 to SDE-8061.**
(See details in the attached Curriculum Report—Page 116)

44) **To cross-level list ENGN 4062 to SDE-8062.**
(See details in the attached Curriculum Report—Pages 117-118)

45) **To cross-level list ENGN 4063 to SDE-8063.**
(See details in the attached Curriculum Report—Page 119)

46) **To cross-level list ENGN 4070 to SDE-8070.**
(See details in the attached Curriculum Report—Page 120)

47) **To cross-level list ENGN 4080 to SDE-8080.**
(See details in the attached Curriculum Report—Page 121)

48) **To cross-level list ENGN 4081 to SDE-8081.**
(See details in the attached Curriculum Report—Pages122-123)

49) **To cross-level list ENGN 4100 to SDE-8100.**
(See details in the attached Curriculum Report—Page 124)

50) **To cross-level list ENGN 4101 to SDE-8101.**
(See details in the attached Curriculum Report—Page 125)

51) **To add "permission of the instructor" as a pre-requisite for SDE 8310.**
(See details in the attached Curriculum Report—Page 126)

52) **To add "permission of the instructor" as a pre-requisite for SDE 8320.**
(See details in the attached Curriculum Report—Page 127)

53) **To add "permission of the instructor" as a pre-requisite for SDE 8330.**
(See details in the attached Curriculum Report—Pages 128)

54) **To add "permission of the instructor" as a pre-requisite for SDE 8350**.
(See details in the attached Curriculum Report—Page 129)

55) **To add "permission of the instructor" as a pre-requisite for SDE 8370.**
(See details in the attached Curriculum Report—Page 130)

56) **To add "permission of the instructor" as a pre-requisite for SDE 8410.**
(See details in the attached Curriculum Report—Page 131)

57) **To add "permission of the instructor" as a pre-requisite for SDE 8440.**
(See details in the attached Curriculum Report—Page 132)

58) **To add "permission of the instructor" as a pre-requisite for SDE 8450.**
(See details in the attached Curriculum Report—Page 133)

59) **To add "permission of the instructor" as a pre-requisite for SDE 8470.**
(See details in the attached Curriculum Report—Page 134)

60) **To add "permission of the instructor" as a pre-requisite for SDE 8510.**
(See details in the attached Curriculum Report—Page135)

61) **To add "permission of the instructor" as a pre-requisite for SDE 8530.**
(See details in the attached Curriculum Report—Pages 136)

62) **To add "permission of the instructor" as a pre-requisite for SDE 8550.**
(See details in the attached Curriculum Report—Page 137)

63) **To add "permission of the instructor" as a pre-requisite for SDE 8830.**
(See details in the attached Curriculum Report—Pages 138)

64) **That the Academic Calendar entry for the Doctor of Philosophy in Sustainable Design Engineering be revised to identify which graduate-level courses are eligible for the PhD program.**
(See details in the attached Curriculum Report—Pages 139-158)

B. Linkletter raised concerns regarding cross-listing of 4000 and 8000 level courses. Two concerns were the inability of undergraduates who subsequently became graduate students to have sufficient courses available, and maintaining distinctions between student expectations for graduate versus undergraduate courses

B. Linkletter moved to table motions #17-#64 until the course descriptions are substantially changed to reflect the different graduate level courses.

N. Mannholland asked for clarification if the motion is to change the course descriptions in the calendar or to change the content of the courses.

B. Linkletter answered that it is to ensure the course descriptions are different and at a later date working towards students being able to take both the 4000 and 8000 level courses.

President Keefe invited W. Peters to comment on the implications of this for the fall semester.

W. Peters noted that implications would include APCC's proposed changes not applying in the upcoming fall semester, and possibly not the winter semester. He emphasized that, while understanding the intent to table, it's essential to acknowledge that cross-level listing regulations aim to bring students together under one instructor in one classroom at one time.

He highlighted the significance of viewing cross-level listing courses as providing graduate courses to senior undergraduates. He iterated the guidance he received throughout significant preparation for these changes, emphasizing the need for distinct experiences and assessments for undergraduate and graduate students.

Additionally, W. Peters stated that cross-level listing has been passed by Senate many times in the past without issue. He added that motion #64 clarifies which courses are eligible for the PhD program (with additional requirements for graduate level course status) and which are not based on the cross-level listing.

N. Etkin shared that if the concern is to stop cross-level listing courses, Senate should be discussing this in the context of the policy, not in the context of one Faculty's submission. She added that cross-level listing has long been a tradition at UPEI, so it is unfortunate to not have the opportunity to debate the implications of such a drastic change in policy.

N. Etkin also shared that in her experience, the motion to table a motion would come after the initial motion was discussed. The Dean of Engineering did not have the opportunity to share with Senators the context of the motions. Senators voted on a motion to table without being given an understanding of the motions they were voting for or against.

President Keefe acknowledged the procedural issue and proposed setting aside the motion to table so that a fulsome discussion of motions 17-64 could be held. B. Linkletter agreed.

M. Sweeney-Nixon reminded Senators that APCC motions go through much consultation and analysis before being presented to Senate.

N. Etkin shared that the issue B. Linkletter raises is an important one, especially in the context of programs that do not have many graduate courses. When you look at motion 64 it encompasses many graduate courses, which speaks to the MPHEC concern.

W. Peters emphasized that MPHEC was a top consideration in their process. Since the PhD program is relatively new, FSDE is still in the early stages of reporting to MPHEC. The challenge lies in balancing course availability for both graduate and undergraduate levels while addressing MPHEC's concerns about course value at the graduate level. Hence motion 64, clarifying that the cross-level listed courses were originally designated as undergraduate, won't be eligible as graduate courses for the PhD program. He added that it is crucial to distinguish between two separate issues: students not being able to take a 4000-level course as an 8000-level course and the Senate's cross-level listing policy.

B. Linkletter stated he has taken the opportunity to highlight the weakness in UPEI's graduate program. For example, every graduate course in Chemistry is cross-level listed with an undergraduate course. This is a weakness because Chemistry does not have the faculty members to separate those out. UPEI Chemistry students, therefore, who want to take graduate levels courses in Chemistry cannot because they have already taken them at the undergraduate level.

President Keefe asked if it would be appropriate for Senate to review the current policy.

B. Linkletter asked that graduate courses be treated with priority and seen as valuable, despite the number of students enrolled in them.

N. Etkin raised an example where Senate recently passed a motion to have two cross-level listed courses in Environmental Sciences decoupled, which are now being taught separately. She stated that it is up to the programs to make the determinations of what is best for the students, and to utilize the decoupling process where necessary.

M. Sweeney-Nixon stated that this issue will be reviewed by the Senate's Graduate Studies Advisory Committee.

A. Braithwaite shared that she echoes W. Peters enthusiasm in providing the opportunity for undergraduate students to take graduate level courses, but at the same time sees the inefficacy of UPEI students being unable to take graduate level courses due to having taken them at the 4000 level.

President Keefe commented that it is clear that this policy should be reviewed as suggested by M. Sweeney-Nixon.

A. Braithwaite added that the discussion should include what will be done with the existing courses.

B. Linkletter restated that simply changing the course descriptions so that they are no longer identical could be enough to lift the eligibility regulation since we already know that the undergraduates and graduates are having two different experiences in the same course.

N. Etkin shared that according to the cross-level listing policy, students may only take a graduate-level course if they have previously completed the cross-level listed course with the Dean of Graduate Studies' approval. She pointed out that the restriction on taking two cross-listed courses stems from their similarity. Even if the course descriptions differ, duplicating credits for very similar content is discouraged. She concluded by suggesting that instructors determine their course instruction, she also recommended a policy review by academic policy experts.

J. Sentance shared that he was hearing inconsistency in the comparison of the 4000- and 8000-level courses. He understood W. Peters to say they are different, and he understood N. Etkin to say they are the same.

W. Peters indicated that the 4000 and 8000 level courses are the same in that they are taught at the same time in the same place by the same instructor to the same students as the academic regulation allows. However, he reported that there are different requirements for the two course levels in terms of assessment and expected outcomes, which are established by the instructor. He supported the concept of a review of the cross-level listing regulation but indicated that the only ability to cross-level list at this time is through the existing academic regulation which is what the FSDE is doing in bringing forward these motions.

A. Hsiao noted that the motions which are in question came about by a very holistic faculty approach and were well prepared by the Graduate Studies Coordinator. She added that it is important that Senators believe in good faith that the individuals behind these decisions are doing their due diligence to ensure regulations are being met and the best interests of students are top of mind.

B. Linkletter announced that he no longer wished to table the FSDE motions but rather, based on discussion, looks forward to an analysis on how UPEI delivers its graduate programs.

FACULTY OF INDIGENOUS KNOWLEDGE EDUCATION & APPLIED STUDIES

OMNIBUS MOTION (G. Naterer/G. Evans) that motions 65-82 be approved as noted below: CARRIED

65) **That a new course IKE 2052 Indigenous Resistance and Decolonizing be approved as proposed.**
(See details in the attached Curriculum Report—Pages 160-163)

66) **That a new course IKE 2110 Métis Culture, History and Governance.**
(See details in the attached Curriculum Report—Pages 164-166)

67) **That a new course IKE 2220 Beadwork: The symbols of Indigenous Cultural Resilience and Value be approved as proposed.**

(See details in the attached Curriculum Report—Pages 167-169)

68) **That a new course IKE 2230 The Mi'Kmaq of Eastern Canada be approved as proposed.**
(See details in the attached Curriculum Report—Pages 170-172)

69) **That a new course IKE 2320 Wabanaki Confederacy be approved as proposed.**
(See details in the attached Curriculum Report—Pages 172-175)

70) **That a new course IKE 3010 Mi'Kmaw Language II be approved as proposed.**
(See details in the attached Curriculum Report—Pages 176-178)

71) **That a new course IKE 3056 Indigenous Peoples and Justice be approved as proposed.**
(See details in the attached Curriculum Report—Pages 179-182)

72) **That a new course IKE 3066 Introduction to Indigenous Research Methodologies be approved as proposed.**
(See details in the attached Curriculum Report—Pages 183-185)

73) **That a new course IKE 3221 Mi'Kmaq Spiritualities be approved as proposed.**
(See details in the attached Curriculum Report—Pages 186-188)

74) **That a new course IKE 3340 Wabanaki Peace & Friendship Treaties be approved as proposed.**
(See details in the attached Curriculum Report—Pages 189-191)

75) **That a new course IKE 3350 Storytelling and Wabanaki Legends be approved as proposed.**
(See details in the attached Curriculum Report—Pages 192-194)

76) **That a new course IKE 3410 Canadian Treaties and Self-Government Agreements be approved as proposed.**
(See details in the attached Curriculum Report—Pages 195-197)

77) **That a new course IKE 4520 Islands of Indigeneity be approved as proposed.**
(See details in the attached Curriculum Report—Pages 198-200)

78) **That a new course IKE 4096 Applied Indigenous Justice be approved as proposed.**
(See details in the attached Curriculum Report—Pages 201-204)

79) **That a new course IKE 4090 Indigenous Special Topics be approved as proposed.**
See details in the attached Curriculum Report—Pages 205-208)

80) **That a new course IKE 4210 Gijituaqasin: On the Land be approved as proposed.**
(See details in the attached Curriculum Report—Pages 209-211)

81) **That a new course IKE 4240 Ika'taquey: Indigenous Gardening & Meditative Practices be approved as proposed.**
(See details in the attached Curriculum Report—Pages 212-214)

82) **That a new course IKE 4410 Indigenous Territories Use-and-Occupancy Research Methods be approved as proposed.**
(See details in the attached Curriculum Report—Pages 215-217)

K. Mears shared that, as more Indigenous Knowledge courses are becoming available at UPEI, she would like to bring to attention the Library requests for

resources. To her knowledge the funding was not received to support this programming.

D. Moses shared that the Library has received the one-time costs as well as the base costs and costs for books. In consultation with the IKERAS faculty, there was one funding element cancelled. A request for more materials could be revisited.

C. Murray took a moment to thank G. Evans and the rest of the IKERAS faculty for what is being accomplished here at UPEI to advance Indigenous Knowledge. She added that these 18 new courses are going to move our university and our students forward in a very positive way.

FACULTY OF SCIENCE

OMNIBUS MOTION (G. Naterer/N. Etkin) that motions 83-88 be approved as noted below: CARRIED

83) **That the changes to the calendar entry for the Dietetic Option be approved as proposed.**
(See details in the attached Curriculum Report—Pages 219-220)

84) **To have changes to the calendar entry for the Integrated Dietetic Internship Program approved as proposed.**
(See details in the attached Curriculum Report—Pages 221-226)

85) **To approve the changes to the "Suggested Course Sequences" for the Biology Major and Biology Honours program.**
(See details in the attached Curriculum Report—Pages 227-228)

86) **To approve the calendar entry change for the Biology Major "Required Courses from Other Departments" be approved as proposed.**
(See details in the attached Curriculum Report—Pages 229-230)

87) **To approve the removal of the prerequisite for BIOT 2020 Case Studies in Biotechnology as proposed.**
(See details in the attached Curriculum Report—Page 231)

88) **To approve the course description change for BIOT 4820 Experiential Learning Project in Biotechnology as proposed.**
(See details in the attached Curriculum Report—Page 232)

OFFICE OF THE REGISTRAR

OMNIBUS MOTION (G. Naterer/C. Ryan) that motions 89-90 be approved as noted below: CARRIED

89) **To revise Academic Regulation #17 Academic Standing, as proposed.**
(See details in the attached Curriculum Report—Pages234-237)

90) **To update the Terminology and Definitions section to align with the changes to Academic Regulation (#17).**
(See details in the attached Curriculum Report—Page 238)

FACULTY OF SCIENCE

91) MOTION (G. Naterer/N. Etkin) to have the calendar entry be revised as proposed. CARRIED

(See details in the Addendum to the attached Curriculum Report).

b. Senate Steering and Nominating Committee

i. Senate and Senate Committee Vacancies for Fall

The SSNC will be seeking nominations to fill remaining Senate vacancies. By extension will be seeking Senators and faculty members to fill Senate committee vacancies.

ii. Senate Policies to be Repealed

Oumah Cuniah has done a great deal of work to identify Senate policies that are outdated or have been moved into academic regulations:

MOTION (T. Mady/N. Etkin) to repeal Degrees with Standing Policy (#admreggnl0003) CARRIED

MOTION (A. MacKenzie/C. Ryan) to repeal Major Area of Study on Transcripts (#admreggnl0006) CARRIED

MOTION (J. Sentance/B. Waterman) to repeal Notation on Honours Degrees Policy (#admreggnl0005) CARRIED

MOTION (L. Brinklow/N. Etkin) to repeal Retention of Scholarships Policy (#admreggnl0004) CARRIED

MOTION (T. Saunders/A. Zinck) to repeal Repeating Passed Course Policy (#admreggnl0011n) CARRIED

MOTION (N. Mannholland/P. Bernard) to repeal Transfer Students Policy (#admreggnl0007) CARRIED

iii. Senate Committee Annual Report Dates

SSNC is recommending reporting dates for committees to keep Senators apprised of what is happening within these committees.

J. Sentance shared that he feels that Board budget reporting should be presented at Senate for information purposes as has been done in the past.

C. Ryan agreed that this was a helpful practice.

President Keefe shared that, while a budget has not yet been approved, it can be shared in the fall.

K. Mears then shared with Senators that the SSNC, in the spirit of Senators seeing what occurs in our committees, will be working on a process whereby all committees capture minutes and post to the Senate website.

MOTION: (G. Naterer/K. Mears) To extend the length of the meeting by 15 minutes. CARRIED.

6. Other Business

a. Campus Update

i. Timetable Scheduling

G. Naterer stated that an Infosilem system has been implemented recently to make more effective use of limited classroom space across campus. As with many new software systems there is a learning curve of initial adoption and issues that need to be resolved. Special thanks to Kathy Gottshall-Pass, Andrea Trowbridge and Katy McDonnel in the Registrar's Office for their extensive work in dealing with issues as they arise. They met recently with Dean's Council to discuss the 2034-24 timetable, they received feedback and are making changes to address concerns raised. There have been sessions made available for training and there are user manuals available as well. Problems can arise when data has been entered incorrectly, so it is important to keep that in mind.

J. Sentance asked if there is a timeline for when the challenges will be addressed.

D. Sutton iterated, as was discussed at the Dean's Council, the importance of departments sharing examples of issues they are having so that the specifics of the mess are known.

J. Sentance asked if a timetabling policy exists.

The answer to the question was yes.

N. Etkin highlighted that software is only as good as the information we enter into it.

C. Murray voiced appreciation to Katy McDonnell who was phenomenal to work with regarding issues being fixed, and she encouraged Senators to reach out with specifics so they can be resolved before registration.

D. Sutton restated the importance of ensuring the Registrar's Office is made aware of issues.

MEETING MOVED TO IN CAMERA

7. Adjournment

MOTION (K. Mears) that the meeting be adjourned at 5:15 pm. CARRIED.

Respectfully Submitted,

Donna Sutton
Secretary of Senate

UNIVERSITY of Prince Edward ISLAND

Sixth Curriculum Report
March 28, 2023
April 14, 2023

SUMMARY OF FACULTY OF ARTS MOTION #'S 1-13

1. SAN 3121 Race and Whiteness - New Course
2. PSY 6501 - Prerequisite Change
3. PSY 7201- Prerequisite Change
4. PSY 7202 - course prerequisite
5. PSY 7203 - course prerequisite
6. PSY 7204 - course prerequisite
7. PSY 7501 - course prerequisite
8. PSY 8502 - course prerequisite
9. PSY 8503 - course prerequisite
10. PSY 9000 - course prerequisite
11. Doctor of Psychology - Calendar entry change
12. ACLC 4070 - Prerequisite change
13. Integrated Studies - Calendar Entry Change

NEW COURSE PROPOSAL — Motion #1

Faculty/School: **Arts**

Department/Program(s): **Sociology/Anthropology**

MOTION: That a new course entitled SAN 3121 Race and Whiteness be approved as a cross-listed course with DSJS 3120 Race and Whiteness as proposed by DSJS.

Course Number and Title	SAN 3121 Race and Whiteness
Description	This course explores how "whiteness" as both an identity and a structure has long been overlooked, denied, and disavowed—and with what consequences. Topics addressed include: the idea of race and definitions of racism; multiple and conflicting ideas about whiteness-es; everyday whiteness, white normativity, and white privilege; "white fragility" and "white guilt"; and white anti-racism and "good white people."
Cross-Listing	DSJS-3120
Prerequisite/Co-Requisite	Anthropology 1050, Sociology 1010, and one 2000-level Anthropology, Sociology, or Sociology/Anthropology course
Credit(s)	3
Notation	Lecture

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 25 to 35

Is there an Enrolment Cap: Yes

If there is an enrolment limit, please explain. Our 300 level courses are capped at 35.

Rationale for New Course: This DSJS course offers an important opportunity to have a course on race which will benefit our students while expanding course options for students.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: N/A

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

If yes, please explain. n/a

Authorization	***Date:***
Departmental Approval: Dr. Charles Adeyanju	January 20, 2023
Faculty/School Approval: Arts Curriculum Committee	March 7, 2023
Faculty Dean's Approval: Sharon Myers	March 7, 2023
Graduate Studies Dean's Approval: n/a	n/a
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL

Motion #1

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

SAN 3121 Race and Whiteness

Library Resource Requirements *(to be completed by the liaison and/or collections librarian).* The Library already submitted resource requirements for this course, approved by the Senate in September 2022, under its DSJS designation. No further resources are needed beyond those listed in that form.

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
- Subscription Dependencies (in interdisciplinary packages)
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support

New resources needed to support this proposal:

- Capital Requirements *(other than new course-specific)*
- Collections:
  - Monographs
  - Subscriptions
  - Databases
  - Other
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
- Other One-Time or Ongoing Library expenses (e.g. software licenses)

Summary of additional budget allocation required:

- One-time: _____ For each of _____ consecutive years
- Annual: _____
  - Per-year percentage increase in annual: _____

Does the budget allocation for library resources in this proposal meet the requirement?

Date Received by Liaison/Collections Librarian	December 6, 2022
Name of Librarian to be Contacted for Questions	Melissa Belvadi
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	December 19, 2022

CALENDAR & CURRICULUM CHANGE — Motion #2

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 6501 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 6501 ASSESSMENT PRACTICUM Students are required to complete a minimum of 200 practicum hours focusing on assessment activities at the UPEI Psychology Clinic working about equally with adult and child/adolescent clients. Students also attend clinical teaching sessions and rounds relevant to specific issues relevant to psychology practice within the UPEI Psychology Clinic. Students also are provided with opportunities to engage in community outreach focused on the provision of intervention to under-served communities. PREREQUISITE: PSY 6204, PSY 6205 Three semester hours This course is graded Pass/Fail	PSY 6501 ASSESSMENT PRACTICUM Students are required to complete a minimum of 200 practicum hours focusing on assessment activities at the UPEI Psychology Clinic working about equally with adult and child/adolescent clients. Students also attend clinical teaching sessions and rounds relevant to specific issues relevant to psychology practice within the UPEI Psychology Clinic. Students also are provided with opportunities to engage in community outreach focused on the provision of intervention to under-served communities. PREREQUISITE: PSY 6204, ~~PSY 6205~~ Three semester hours This course is graded Pass/Fail

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #3

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 7201 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 7201 INTERVENTION WITH ADULTS This course reviews major theoretical approaches to psychotherapy with adults including approaches from within the psychodynamic, existential, interpersonal, cognitive-behavioural and person centered traditions. The theoretical foundations of these traditions are explored along with relevant evidence which speaks to their efficacy in the treatment of various psychological problems experienced by adults. Students gain experience in case conceptualization and intervention within each of these theoretical traditions. Moreover, students are encouraged to draw on the conceptual and empirical research base (or lack thereof) that informs our understanding of the impact of social and cultural factors on therapeutic effectiveness. Students are encouraged, through reflection and attention to theory and evolving evidence, to consider how clinical psychologists develop cultural sensitivities and competence in their ability to consider cultural factors when developing working alliances, conducting assessments, and delivering evidence-based interventions. This includes an ability for students of all backgrounds to draw on an awareness of their own cultural values and group affiliations and how these may influence their clinical practice. Ethical issues which are likely to emerge in clinical work with adults are discussed. PREREQUISITE: PSY 6208 Three hours a week Three semester hours	PSY 7201 INTERVENTION WITH ADULTS This course reviews major theoretical approaches to psychotherapy with adults including approaches from within the psychodynamic, existential, interpersonal, cognitive-behavioural and person centered traditions. The theoretical foundations of these traditions are explored along with relevant evidence which speaks to their efficacy in the treatment of various psychological problems experienced by adults. Students gain experience in case conceptualization and intervention within each of these theoretical traditions. Moreover, students are encouraged to draw on the conceptual and empirical research base (or lack thereof) that informs our understanding of the impact of social and cultural factors on therapeutic effectiveness. Students are encouraged, through reflection and attention to theory and evolving evidence, to consider how clinical psychologists develop cultural sensitivities and competence in their ability to consider cultural factors when developing working alliances, conducting assessments, and delivering evidence-based interventions. This includes an ability for students of all backgrounds to draw on an awareness of their own cultural values and group affiliations and how these may influence their clinical practice. Ethical issues which are likely to emerge in clinical work with adults are discussed. PREREQUISITE: ~~PSY 6208~~ Acceptance to the Doctor of Psychology Program Three hours a week Three semester hours

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

CALENDAR & CURRICULUM CHANGE — Motion #3

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	*Date:*
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #4

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 7202 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 7202 INTERVENTION WITH CHILDREN AND ADOLESCENTS This course considers basic approaches to intervention with children and adolescents through the lens of developmental psychopathology and evidence-based practice. Students gain an understanding of the importance of selecting interventions that are appropriate to what we know about effectiveness for specific clinical problems, the developmental level of the client, and the wider ecology of risk and protective factors that characterize children's and adolescents' lives. Major approaches to psychotherapeutic intervention with children and adolescents are reviewed. Students gain experience in the development of basic clinical skills that can be applied within a variety of clinical interventions. Important ethical issues that often emerge in work with children and adolescents are discussed. The importance of cultural and individual diversities in key areas that are often targeted by interventions with children and adolescents are considered, e.g., parenting values, beliefs and practices or family hierarchies and communication patterns. Students also are encouraged to draw on the conceptual and empirical research base (or lack thereof) that informs our understanding of the impact of social and cultural factors on therapeutic effectiveness. PREREQUISITE: PSY 6208 Three hours a week Three semester hours	PSY 7202 INTERVENTION WITH CHILDREN AND ADOLESCENTS This course considers basic approaches to intervention with children and adolescents through the lens of developmental psychopathology and evidence-based practice. Students gain an understanding of the importance of selecting interventions that are appropriate to what we know about effectiveness for specific clinical problems, the developmental level of the client, and the wider ecology of risk and protective factors that characterize children's and adolescents' lives. Major approaches to psychotherapeutic intervention with children and adolescents are reviewed. Students gain experience in the development of basic clinical skills that can be applied within a variety of clinical interventions. Important ethical issues that often emerge in work with children and adolescents are discussed. The importance of cultural and individual diversities in key areas that are often targeted by interventions with children and adolescents are considered, e.g., parenting values, beliefs and practices or family hierarchies and communication patterns. Students also are encouraged to draw on the conceptual and empirical research base (or lack thereof) that informs our understanding of the impact of social and cultural factors on therapeutic effectiveness. PREREQUISITE: ~~PSY 6208~~ Acceptance to the Doctor of Psychology Program Three hours a week Three semester hours

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

CALENDAR & CURRICULUM CHANGE — Motion #4

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #5

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 7203 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 7203 ADVANCED INTERVENTION WITH ADULTS: BEHAVIOURAL, COGNITIVE AND RELATED APPROACHES This course provides students with an opportunity to gain advanced understanding of psychotherapy approaches that fall within the cognitive and behavioural paradigms. Students learn to apply fundamental techniques to a range of clinical issues across the lifespan. The course emphasizes well-established approaches as well as emerging interventions that have gained prominence and research support. Basic skills are developed through a range of assigned readings and class presentations. Basic intervention skills are taught didactically and practiced during recorded practice sessions. Students gain experience in interventions aimed at modifying thinking, beliefs and behaviours. Integration of emerging approaches and techniques such as those that emphasize mindfulness and virtual-reality-assisted psychotherapy will be undertaken. Implications of cultural and individual diversities for application of behavioural, cognitive, and related approaches are explored. PREREQUISITE: PSY 7201 Three hours a week Three semester hours	PSY 7203 ADVANCED INTERVENTION WITH ADULTS: BEHAVIOURAL, COGNITIVE AND RELATED APPROACHES This course provides students with an opportunity to gain advanced understanding of psychotherapy approaches that fall within the cognitive and behavioural paradigms. Students learn to apply fundamental techniques to a range of clinical issues across the lifespan. The course emphasizes well-established approaches as well as emerging interventions that have gained prominence and research support. Basic skills are developed through a range of assigned readings and class presentations. Basic intervention skills are taught didactically and practiced during recorded practice sessions. Students gain experience in interventions aimed at modifying thinking, beliefs and behaviours. Integration of emerging approaches and techniques such as those that emphasize mindfulness and virtual-reality-assisted psychotherapy will be undertaken. Implications of cultural and individual diversities for application of behavioural, cognitive, and related approaches are explored. PREREQUISITE: ~~PSY 7201~~ Acceptance to the Doctor of Psychology Program Three hours a week Three semester hours

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

Effective Term: Fall 2023

Implications for Other Programs: NA

CALENDAR & CURRICULUM CHANGE — Motion #5

Impact on Students Currently Enrolled: No change from current practice.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #6

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 7204 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 7204 ADVANCED INTERVENTION WITH ADULTS: SPECIFIC CLINICAL APPROACHES The course provides in-depth study of a model—which can vary year to year—of an intervention or psychotherapeutic approach with adults, examining theory, research findings, historical perspectives, and techniques. The goal is an in depth understanding of the particular approach, and development of foundational skills in application of the approach, including its use in case formulation and specific interventions. Students have an opportunity to practice interventions in audiovisual recorded practice sessions. A rotating series of intervention models are considered, e.g., psychodynamic approaches, humanistic approaches, "Third Wave" behavioural therapies, treatment of trauma, interventions for specific populations, group psychotherapy. Implications of cultural and individual diversities for application of the approaches are explored. PREREQUISITE: PSY 7201 Three hours a week Three semester hours	PSY 7204 ADVANCED INTERVENTION WITH ADULTS: SPECIFIC CLINICAL APPROACHES The course provides in-depth study of a model—which can vary year to year—of an intervention or psychotherapeutic approach with adults, examining theory, research findings, historical perspectives, and techniques. The goal is an in depth understanding of the particular approach, and development of foundational skills in application of the approach, including its use in case formulation and specific interventions. Students have an opportunity to practice interventions in audiovisual recorded practice sessions. A rotating series of intervention models are considered, e.g., psychodynamic approaches, humanistic approaches, "Third Wave" behavioural therapies, treatment of trauma, interventions for specific populations, group psychotherapy. Implications of cultural and individual diversities for application of the approaches are explored. PREREQUISITE: ~~PSY 7201~~ Acceptance to the Doctor of Psychology Program Three hours a week Three semester hours

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

CALENDAR & CURRICULUM CHANGE — Motion #6

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #7

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 7501 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 7501 INTERVENTION PRACTICUM Students are required to complete a minimum of 200 practicum hours focusing on intervention activities at the UPEI Psychology Clinic working about equally with adult and child/adolescent clients. Students also attend clinical teaching sessions relevant to specific issues relevant to psychology practice within the UPEI Psychology Clinic.Students are provided with opportunities to engage in community outreach focused on the provision of intervention services to under-served communities. PREREQUISITE: PSY 7201, PSY 7203 Three semester hours This course is graded Pass/Fail	PSY 7501 INTERVENTION PRACTICUM Students are required to complete a minimum of 200 practicum hours focusing on intervention activities at the UPEI Psychology Clinic working about equally with adult and child/adolescent clients. Students also attend clinical teaching sessions relevant to specific issues relevant to psychology practice within the UPEI Psychology Clinic. Students are provided with opportunities to engage in community outreach focused on the provision of intervention services to under-served communities. PREREQUISITE~~: PSY 7201, PSY 7203~~ PSY 6208 Three semester hours This course is graded Pass/Fail

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #8

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the PSY 8502 course prerequisite to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 8502 COMMUNITY INTERVENTION PRACTICUM Students are required to complete a minimum of 50 practicum hours involving intervention at the group or community level. This work may involve an intervention focused on improving mental health or an intervention aimed at preventing a mental health problem or at health promotion. Students may collaborate with other students, under the direction of a core faculty member, to work toward community engagement which will allow some form of clinically relevant and empirically supported intervention. PREREQUISITE: PSY 8201 Three semester hours This course is graded Pass/Fail	PSY 8502 COMMUNITY INTERVENTION PRACTICUM Students are required to complete a minimum of 50 practicum hours involving intervention at the group or community level. This work may involve an intervention focused on improving mental health or an intervention aimed at preventing a mental health problem or at health promotion. Students may collaborate with other students, under the direction of a core faculty member, to work toward community engagement which will allow some form of clinically relevant and empirically supported intervention. PREREQUISITE: ~~PSY 8201~~ Acceptance to the Doctor of Psychology Program Three semester hours This course is graded Pass/Fail

Rationale for Change: All students in the program take the same courses with their cohort. This change reflects current practice and provides flexibility in the registration system in the event there are modifications on the ordering of courses.

Effective Term: Fall 2023 **Implications for Other Programs:** NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #9

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the course prerequisite and course description for PSY 8503 to reflect current program expectations.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 8503 ADVANCED PRACTICUM II Students may complete a second advanced practicum consisting of at least 200 practicum hours. The practicum setting may be one that has been previously established or the student may seek out their own clinical placement which must be approved by the Associate Director of Clinical Experience. PREREQUISITE: PSY 8501	PSY 8503 ADVANCED PRACTICUM II Students may complete a second advanced practicum consisting of at least 200 practicum hours. The practicum setting may be one that has been previously established or the student may seek out their own clinical placement which must be approved by the ~~Associate Director of Clinical Experience~~ Director of Clinical Training. PREREQUISITE: PSY 8501 and permission of the Director of Clinical Training

Rationale for Change: Reflects change in Director title. This is an optional offering, and dependent upon availability of suitable placement sites for students, approved by Director of Clinical Training.

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #10

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To revise the prerequisite for PSY 9000 Predoctoral Internship as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PSY 9000 PREDOCTORAL INTERNSHIP Doctor of Psychology students complete a full-time 12-month internship which consists of full-time clinical practice under the supervision of registered psychologists. PREREQUISITE: Permission of the Director of Training This course is graded Pass/Fail	PSY 9000 PREDOCTORAL INTERNSHIP Doctor of Psychology students complete a full-time 12-month internship which consists of full-time clinical practice under the supervision of registered psychologists. PREREQUISITE: Permission of the Director of Clinical Training This course is graded Pass/Fail

Rationale for Change: Omitted word in existing title of Director of Clinical Training. Added to reflect current title for role.

Effective Term: Fall 2023

Implications for Other Programs: NA

Impact on Students Currently Enrolled: No change from current practice.

Authorization	*Date:*
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #11

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Doctor of Psychology**

MOTION: To change the course sequence and schedule of the PsyD program updated to reflect current and future delivery.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
DOCTOR OF PSYCHOLOGY IN CLINICAL PSYCHOLOGY Students following this degree program must complete 75 semester hours of required courses, 750 hours of clinical practica, and a full-time 12-month clinical internship.	**DOCTOR OF PSYCHOLOGY IN CLINICAL PSYCHOLOGY** Students following this degree program must complete 75 semester hours of required courses, 750 hours of clinical practica, and a full-time 12-month clinical internship. **REQUIRED LIST OF COURSES** • PSY 6201 Critical Historical Perspectives on Clinical Psychology • PSY 6202 Ethics and Professional Issues in Clinical Psychology • PSY 6101 Foundations I: Human Development and Personality • PSY 6203 Psychopathology and Diagnosis Across the Lifespan • PSY 6204 Psychometrics and Assessment Practices with Adults • PSY 6102 Foundations II: Social Bases of Behaviour • PSY 6103 Foundations III: Cognitive and Affective Bases of Behaviour • PSY 6206 Quantitative Approaches to Research in Clinical Psychology • PSY 6207 Qualitative Research in Clinical Psychology • PSY 6205 Psychometrics and Assessment Practices with Children and Adolescents • PSY 6501 Assessment Practicum • PSY 6208 Introduction to Psychotherapy: Common Factors • PSY 7101 Foundations IV: Biological Bases of Behaviour • PSY 7202 Intervention with Children and Adolescents • PSY 7201 Intervention with Adults

CALENDAR & CURRICULUM CHANGE — Motion #11

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
	• PSY 7801 Clinical Dissertation: Research Proposal I PSY 7203 Advanced Intervention with Adults: Behavioural, Cognitive & Related Approaches • PSY 7204 Advanced Intervention with Adults: Specific Clinical Approaches • PSY 7205 Advanced Intervention with Children and Adolescents • PSY 7802 Clinical Dissertation: Research Proposal II • PSY 7501 Intervention Practicum • PSY 8801 Clinical Dissertation: Project I • PSY 8201 Clinical Psychology in the Community • PSY 8202 Clinical Psychology for Organizational and Systems Change • PSY 8501 Advanced Practicum I • PSY 8502 Community Intervention Practicum • PSY 8802 Clinical Dissertation: Project II • PSY 8203 Clinical Supervision and Teaching • PSY 8204 Psychology Practice • PSY 8501 Advanced Practicum I • PSY 9000 Predoctoral Internship **Optional Course** • PSY 8503 Advanced Practicum II **SUGGESTED COURSE SEQUENCE** The order in which courses are offered may vary year to year. **YEAR 1** **Semester 1 (Fall)** PSY 6201 Critical Historical Perspectives on Clinical Psychology PSY 6202 Ethics and Professional Issues in Clinical Psychology ~~PSY 6101 Foundations I: Human Development and Personality~~ PSY 6203 Psychopathology and Diagnosis Across the Lifespan PSY 6204 Psychometrics and Assessment Practices with Adults PSY 6207 Qualitative Research in Clinical Psychology
YEAR 1 **Semester 1 (Fall)** PSY 6201 Critical Historical Perspectives on Clinical Psychology PSY 6202 Ethics and Professional Issues in Clinical Psychology PSY 6101 Foundations I: Human Development and Personality PSY 6203 Psychopathology and Diagnosis Across the Lifespan PSY 6204 Psychometrics and Assessment Practices with Adults	

CALENDAR & CURRICULUM CHANGE — Motion #11

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Semester 2 (Winter) PSY 6102 Foundations II: Social Bases of Behaviour PSY 6103 Foundations III: Cognitive and Affective Bases of Behaviour PSY 6206 Quantitative Approaches to Research in Clinical Psychology PSY 6207 Qualitative Research in Clinical Psychology PSY 6205 Psychometrics and Assessment Practices with Children and Adolescents	**Semester 2 (Winter)** PSY 6102 Foundations II: Social Bases of Behaviour **OR** PSY 7101 Foundations IV: Biological Bases of Behaviour ~~PSY 6103 Foundations III: Cognitive and Affective Bases of Behaviour~~ PSY 6205 Psychometrics and Assessment Practices with Children and Adolescents PSY 6206 Quantitative Approaches to Research in Clinical Psychology ~~PSY 6207 Qualitative Research in Clinical Psychology~~ PSY 6208 Introduction to Psychotherapy: Common Factors PSY 6501 Assessment Practicum
Semester 3 (Summer) PSY 6501 Assessment Practicum PSY 6208 Introduction to Psychotherapy: Common Factors	**Semester 3 (Summer)** PSY 6101 Foundations I: Human Development and Personality **OR** PSY 6103 Foundations III: Cognitive and Affective Bases of Behaviour PSY 6501 Assessment Practicum (con't) ~~PSY 6208 Introduction to Psychotherapy: Common Factors~~
YEAR 2 **Semester 1 (Fall)** PSY 7101 Foundations IV: Biological Bases of Behaviour PSY 7202 Intervention with Children and Adolescents PSY 7201 Intervention with Adults PSY 7801 Clinical Dissertation: Research Proposal I PSY 6501 Assessment Practicum (con't)	**YEAR 2** **Semester 1 (Fall)** ~~PSY 7101 Foundations IV: Biological Bases of Behaviour~~ PSY 7202 Intervention with Children and Adolescents ~~PSY 7201 Intervention with Adults~~ PSY 7203 Advanced Intervention with Adults: Behavioural, Cognitive & Related Approaches PSY 7501 Intervention Practicum PSY 7801 Clinical Dissertation: Research Proposal I PSY 8202 Clinical Psychology for Organizational and Systems Change ~~PSY 6501 Assessment Practicum (con't)~~
Semester 2 (Winter) PSY 7203 Advanced Intervention with Adults: Behavioural, Cognitive & Related Approaches PSY 7204 Advanced Intervention with Adults: Specific Clinical Approaches PSY 7205 Advanced Intervention with Children and Adolescents PSY 7802 Clinical Dissertation: Research Proposal II PSY 7501 Intervention Practicum	**Semester 2 (Winter)** PSY 6102 Foundations II: Social Bases of Behaviour **OR** PSY 7101 Foundations IV: Biological Bases of Behaviour PSY 7201 Intervention with Adults ~~PSY 7203 Advanced Intervention with Adults: Behavioural, Cognitive & Related Approaches~~ ~~PSY 7204 Advanced Intervention with Adults: Specific Clinical Approaches~~

CALENDAR & CURRICULUM CHANGE — Motion #11

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
	PSY 7205 Advanced Intervention with Children and Adolescents PSY 7501 Intervention Practicum (con't) PSY 7802 Clinical Dissertation: Research Proposal II
Semester 3 (Summer) PSY 7501 Intervention Practicum (cont.)	**Semester 3 (Summer)** ~~PSY 7501 Intervention Practicum (cont.)~~ PSY 6101 Foundations I: Human Development and Personality **OR** PSY 6103 Foundations III: Cognitive and Affective Bases of Behaviour PSY 8501 Advanced Practicum I
YEAR 3 **Semester 1 (Fall)** PSY 8801 Clinical Dissertation: Project I PSY 8201 Clinical Psychology in the Community PSY 8202 Clinical Psychology for Organizational and Systems Change PSY 8501 Advanced Practicum I	**YEAR 3** **Semester 1 (Fall)** PSY 8203 Clinical Supervision and Teaching PSY 8204 Psychology Practice PSY 8801 Clinical Dissertation: Project I ~~PSY 8201 Clinical Psychology in the Community~~ ~~PSY 8202 Clinical Psychology for Organizational and Systems Change~~ PSY 8501 Advanced Practicum I (con't)
Semester 2 (Winter) PSY 8502 Community Intervention Practicum PSY 8802 Clinical Dissertation: Project II PSY 8203 Clinical Supervision and Teaching PSY 8204 Psychology Practice PSY 8501 Advanced Practicum I	**Semester 2 (Winter)** PSY 7204 Advanced Intervention with Adults: Specific Clinical Approaches PSY 8201 Clinical Psychology in the Community PSY 8502 Community Intervention Practicum PSY 8503 Advanced Practicum II (optional) PSY 8802 Clinical Dissertation: Project II ~~PSY 8203 Clinical Supervision and Teaching~~ ~~PSY 8204 Psychology Practice~~ ~~PSY 8501 Advanced Practicum I~~
Semester 3 (Summer) PSY 8503 Advanced Practicum II (optional)	**Semester 3 (Summer)** PSY 8503 Advanced Practicum II (optional) (con't) PSY 8802 Clinical Dissertation: Project II (con't)

Rationale for Change: This sequencing and scheduling structure reflects current expectations of the PsyD student progress and supports a continuous registration requirement into the summer of Year 3 of the program.

Effective Term: Fall 2023

Implications for Other Programs: NA

CALENDAR & CURRICULUM CHANGE — Motion #11

Impact on Students Currently Enrolled: Will reflect current ordering of courses.

Authorization	***Date:***
Departmental Approval: Dr. Nia Phillips, Chair	March 1 2023
Faculty/School Approval: Arts Curriculum Committee	March 7 2023
Faculty Dean's Approval: Sharon Myers	March 7 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	March 7 2023
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #12

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Applied Communication, Leadership, and Culture**

MOTION: To have the change in prerequisite for ACLC 4070: Work Integrated Practicum be approved as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
4070 WORK INTEGRATED PRACTICUM In this course theory and professional practice are combined. Students work in an approved agency or professional workplace for a total of 40 hours. This capstone experience provides students with an opportunity to integrate essential and advanced skills in a field related to their future career interests. While students engage this practicum/workplace project on their own, all projects are presented in a public forum. PREREQUISITE: ACLC/UNIV 3030 and permission of the instructor 3 credit hours	4070 WORK INTEGRATED PRACTICUM In this course theory and professional practice are combined. Students work in an approved agency or professional workplace for a total of 40 hours. This capstone experience provides students with an opportunity to integrate essential and advanced skills in a field related to their future career interests. While students engage this practicum/workplace project on their own, all projects are presented in a public forum. PREREQUISITE: ACLC 3060 or ACLC/UNIV 3030 and permission of the instructor 3 credit hours

Rationale for Change: This course involves work placements which need to be organized well ahead of the beginning of the semester. Permission of the instructor will mean that the student and the instructor will interact concerning the work placement prior to the start of the course.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Lisa Chilton	February 9, 2023
Faculty/School Approval: Arts Curriculum Committee	March 7, 2023
Faculty Dean's Approval: Sharon Myers	March 7, 2023
Grad. Studies Dean's Approval: n/a	n/a
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2021

CALENDAR & CURRICULUM CHANGE — Motion #13

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Arts**

Department/Program(s)/Academic Regulations: **Integrated Studies**

MOTION: That the change in the number of required semester hours for BIS be approved as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SUMMARY The Bachelor of Integrated Studies requirements include: • 33 semester-hours (11 courses) at the senior level: nine 3000-4000 level courses in any subject, one 3000 level course in the concentration, and one 4000 level course in the concentration. • A grade of 65% in at least 7 of the 11 courses completed at this senior level • Not more than 36 semester-hours (12 courses) at the preparatory (1000) level • 6 semester-hours in One of UPEI 1010, UPEI 1020, or UPEI 1030 and a writing intensive course • Integrated Studies 1930: Creating a Career and Learning Portfolio	**SUMMARY** The Bachelor of Integrated Studies requirements include: • ~~33 semester hours (11 courses)~~ 24 semester hours (8 courses) at the senior level: ~~nine~~ six 3000-4000 level courses in any subject, one 3000 level course in the concentration, and one 4000 level course in the concentration. • A grade of 65% in at least ~~7 of the 11~~ 5 of the 8 courses completed at this senior level • Not more than 36 semester-hours (12 courses) at the preparatory (1000) level • 6 semester-hours in One of UPEI 1010, UPEI 1020, or UPEI 1030 and a writing intensive course • Integrated Studies 1930: Creating a Career and Learning Portfolio • IKE 1040 – Indigenous Teaching of Turtle Island

Rationale for Change: The BIS QAR review process (fall 2021) indicated that students find it challenging to meet the 9 courses at 3000 & 4000 level (any subject). The BIS Program Advisory Committee has examined this requirement in relation to other UPEI degree programs and regional comparators and determined it is consistently higher (proportionally) than other programs/degrees. The BIS Program Advisory Committee recommends reducing the 9 courses to 6, allowing for students to still have 8/30 at the 3000 & 4000 levels, when you include their 2-concentration subject course requirements. This would not change the total number of courses/credits required but would allow more course selection at the 2000 level.

Effective Term: FALL 2023

Implications for Other Programs: none

Impact on Students Currently Enrolled: none

Authorization	***Date:***
Departmental Approval: Inge Dorsey	January 31, 2023
Faculty/School Approval: Arts Curriculum Committee	March 7, 2023
Faculty Dean's Approval: Sharon Myers	March 7, 2023
Grad. Studies Dean's Approval: n/a	n/a
Registrar's Office Approval: Darcy McCardle	March 22, 2023

SUMMARY OF FACULTY OF EDUCATION MOTION #'S 14-16

1	Calendar Entry Change	MOTION: To revise the required courses in the Primary/Elementary BEd program as submitted.	
2	Calendar Entry Change	MOTION: To revise the required courses in the Primary/Elementary BEd (français langue seconde) program as submitted	
3	Calendar Entry Change	MOTION: To revise the admission requirements and accepted teachables for the BEd (français langue seconde) program as submitted.	

CALENDAR & CURRICULUM CHANGE — Motion #14

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Education**

Department/Program(s)/Academic Regulations: **Bachelor of Education**

MOTION: To revise the required courses in the Primary/Elementary BEd program as submitted.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Twelve-Month Post-Degree Bachelor of Education The Bachelor of Education (BEd) is a 12-month post-degree program consisting of 20 three-hour credit courses in education. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It is the opportunity for students to focus their studies in Primary/Elementary (K – 6) or Intermediate/Senior (7-12) and in International, Indigenous, or Adult and Workplace Education. **REQUIRED COURSES:** **PRIMARY/ELEMENTARY CONCENTRATION (K – 6)** **INTERMEDIATE/SENIOR CONCENTRATION (7 – 12)** ED 4030 The Arts and Social Transformation ED 4110 Learners and Learning ED 4150 The Diverse and Inclusive Classroom ED 4200 Teaching for Science, Technology, Math, and Engineering (STEM) ED 4490 Introduction to Indigenous Education ED 4630 Perspectives on Culture and Society in Education ED 4640 Educating for Global Citizenship ED 4660 Principles and Practices of Teaching English as Another Language ED 4820 Assessment and Evaluation ED 4961 Preparation for the Teaching Profession I ED 4962 Practicum I ED 4971 Preparation for the Teaching Profession II ED 4972 Practicum II	**Twelve-Month Post-Degree Bachelor of Education** The Bachelor of Education (BEd) is a 12-month post-degree program consisting of 20 three-hour credit courses in education. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It is the opportunity for students to focus their studies in Primary/Elementary (K – 6) or Intermediate/Senior (7-12) and in International, Indigenous, or Adult and Workplace Education. **REQUIRED COURSES:** **PRIMARY/ELEMENTARY CONCENTRATION (K – 6)** **INTERMEDIATE/SENIOR CONCENTRATION (7 – 12)** ED 4030 The Arts and Social Transformation ED 4110 Learners and Learning ED 4150 The Diverse and Inclusive Classroom ED 4200 Teaching for Science, Technology, Math, and Engineering (STEM) ED 4490 Introduction to Indigenous Education ~~ED 4630 Perspectives on Culture and Society in Education~~ ED 4640 Educating for Global Citizenship ED 4660 Principles and Practices of Teaching English as Another Language ED 4820 Assessment and Evaluation ED 4961 Preparation for the Teaching Profession I ED 4962 Practicum I ED 4971 Preparation for the Teaching Profession II ED 4972 Practicum II

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
PRIMARY/ELEMENTARY CONCENTRATION (K – 6) ED 4220 Mathematics for Teachers ED 4230 Primary/Elementary Mathematics I ED 4245 Inquiry-Based Methods in Science and Social Studies ED 4280 Primary/Elementary Mathematics II ED 4320 Primary/Elementary language and Literacies and Multiliteracies I ED 4330 Literacy and Multiliteracies in the Early Years II ED 4480 Social Emotional Learning and Children's Mental Health **INTERMEDIATE/SENIOR CONCENTRATION (7 – 12)** ED 4130 Multiliteracies Across the Curriculum ED 4420 Adolescent Social & Emotional Health ED 4530 Curriculum and Pedagogy **Students take 4 of:** ED 4260 Intermediate/Senior Mathematics I ED 4270 Intermediate/Senior Mathematics II ED 4360 Intermediate/Senior English I ED 4370 Intermediate/Senior English II ED 4460 Intermediate/Senior Science I ED 4470 Intermediate/Senior Science II ED 4560 Intermediate/Senior Social Studies I ED 4570 Intermediate/Senior Social Studies II **STUDY FOCI** Students may complete a study focus in International, Indigenous, Early Learning or Adult Education by completing a six-week practicum in the specified area and one course beyond the 20 required for the BEd as outlined below: **INTERNATIONAL EDUCATION** ED 4620 International Education **INDIGENOUS EDUCATION** ED 4510 Integrating Indigenous Themes in the Curriculum K-12	**PRIMARY/ELEMENTARY CONCENTRATION (K – 6)** ED 4220 Mathematics for Teachers ED 4230 Primary/Elementary Mathematics I ED 4245 Inquiry-Based Methods in Science and Social Studies ED 4280 Primary/Elementary Mathematics II ED 4320 Primary/Elementary language and Literacies and Multiliteracies I ED 4330 Literacy and Multiliteracies in the Early Years II ED 4336 Developing Learning and Play in the Early Years (Ages 0-8) ED 4480 Social Emotional Learning and Children's Mental Health **INTERMEDIATE/SENIOR CONCENTRATION (7 – 12)** ED 4130 Multiliteracies Across the Curriculum ED 4420 Adolescent Social & Emotional Health ED 4530 Curriculum and Pedagogy ED 4630 Perspectives on Culture and Society in Education **Students take 4 of:** ED 4260 Intermediate/Senior Mathematics I ED 4270 Intermediate/Senior Mathematics II ED 4360 Intermediate/Senior English I ED 4370 Intermediate/Senior English II ED 4460 Intermediate/Senior Science I ED 4470 Intermediate/Senior Science II ED 4560 Intermediate/Senior Social Studies I ED 4570 Intermediate/Senior Social Studies II **STUDY FOCI** Students may complete a study focus in International, Indigenous, ~~Early Learning~~ or Adult Education by completing a six-week practicum in the specified area and one course beyond the 20 required for the BEd as outlined below: **INTERNATIONAL EDUCATION** ED 4620 International Education

CALENDAR & CURRICULUM CHANGE — Motion #14

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
ADULT EDUCATION One of the following: • ED 3630 The Adult Learner • ED 3640 Assessment of Adult Learning • ED 3680 Curriculum Development • ED 3730 Inclusion and Differentiation in Adult Learning **EARLY LEARNING** ED 4336 – Developing Learning and Play in the Early Years (Ages 0-8)	**INDIGENOUS EDUCATION** ED 4510 Integrating Indigenous Themes in the Curriculum K-12 **ADULT EDUCATION** One of the following: • ED 3630 The Adult Learner • ED 3640 Assessment of Adult Learning • ED 3680 Curriculum Development • ED 3730 Inclusion and Differentiation in Adult Learning ~~**EARLY LEARNING**~~ ~~ED 4336 – Developing Learning and Play in the Early Years (Ages 0-8)~~

Rationale for Change: Developing Learning and Play in the Early Years is a priority as recognized by early childhood researchers and school boards across the country, including the local educational authorities (a major employer of UPEI BEd graduates). BEd students entering the professional workforce with the teachings and understandings of ED 4336–Developing Learning and Play in the Early Years (Ages 0-8) will be better prepared for the teaching profession and will have a deeper understanding of different philosophical approaches to early childhood education. The research contributing to the addition ED-4336 is pedagogically strong and widely accepted across multiple education paradigms. This eliminates the Early Learning Study Focus. ED 4630 – Perspectives on Culture and Society will be removed from the Primary cohort as overlap has been identified in ED 4630 within the Primary cohort courses. ED 4630 will remain for the Intermediate/Secondary cohort.

Effective Term: SUMMER 2023

Implications for Other Programs: none

Impact on Students Currently Enrolled: none

Authorization	***Date:***
Departmental Approval: Bachelor of Education Committee	February 10, 2023
Faculty/School Approval: Faculty of Education Council	February 24, 2023
Faculty Dean's Approval: Dr. Debbie MacLellan, Dean (Interim)	February 24, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

CALENDAR & CURRICULUM CHANGE — Motion #15

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Education**

Department/Program(s)/Academic Regulations: **Bachelor of Education (français langue seconde)**

MOTION: To revise the required courses in the Primary/Elementary BEd (français langue seconde) program as submitted.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Bachelor of Education—français langue seconde This unique program will provide the variety of courses, French language and cultural experiences and extended field experiences through which students can develop the knowledge and skills needed to teach in modern French Second Language classrooms. This program also provides students an opportunity to focus their studies in the primary/elementary or intermediate/senior cohorts. Students must pass all courses to graduate with a Bachelor of Education-français langue seconde. **REQUIRED COURSES:** **PRIMARY/ELEMENTARY CONCENTRATION** ED 4030 Intégration des arts ED 4060 Comprendre la santé sociale et émotionnelle chez les élèves ED 4110 Learners and Learning ED 4150 Inclusion en salle de classe ED 4200 Teaching for Science, Technology, Engineering and Math (STEM) ED 4220 Mathematics for Teachers ED 4230 Primary/Elementary Mathematics I ED 4245 Inquiry-Based Methods in Science and Social Studies ED 4280 Primary/Elementary Mathematics II ED 4490 Introduction to Indigenous Education ED 4630 Culture et société ED 4800 Teaching in a Core French, Immersion and French First Language in a Minority Context Setting ED 4820 Évaluation en salle de classe ED 4880 Littératie I ED 4890 Littératie II (primaire-élémentaire) ED 4900 Intégration de la langue au contenu ED 4961 Préparation pour le professionnel de l'enseignement I ED 4962 Stage I ED 4971 Préparation pour le professionnel de l'enseignement II	**Bachelor of Education—français langue seconde** This unique program will provide the variety of courses, French language and cultural experiences and extended field experiences through which students can develop the knowledge and skills needed to teach in modern French Second Language classrooms. This program also provides students an opportunity to focus their studies in the primary/elementary or intermediate/senior cohorts. Students must pass all courses to graduate with a Bachelor of Education-français langue seconde. **REQUIRED COURSES:** **PRIMARY/ELEMENTARY CONCENTRATION** ED 4030 Intégration des arts ED 4060 Comprendre la santé sociale et émotionnelle chez les élèves ED 4110 Learners and Learning ED 4150 Inclusion en salle de classe ED 4200 Teaching for Science, Technology, Engineering and Math (STEM) ED 4220 Mathematics for Teachers ED 4230 Primary/Elementary Mathematics I ED 4245 Inquiry-Based Methods in Science and Social Studies ED 4280 Primary/Elementary Mathematics II ED 4336 Developing Learning and Play in the Early Years (Ages 0-8) ED 4490 Introduction to Indigenous Education ED 4630 Culture et société ~~ED 4800 Teaching in a Core French, Immersion and French First Language in a Minority Context Setting~~ ED 4820 Évaluation en salle de classe ED 4880 Littératie I ED 4890 Littératie II (primaire-élémentaire) ED 4900 Intégration de la langue au contenu ED 4961 Préparation pour le professionnel de l'enseignement I

CALENDAR & CURRICULUM CHANGE — Motion #15

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
ED 4972 Stage II **INTERMEDIATE/SENIOR CONCENTRATION (7-12)** ED 4030 Intégration des arts ED 4060 Comprendre la santé sociale et émotionnelle chez les élèves ED 4110 Learners and Learning ED 4150 Inclusion en salle de classe ED 4200 Teaching for Science, Technology, Engineering and Math (STEM) ED 4490 Introduction to Indigenous Education ED 4630 Culture et société ED 4640 Educating for Global Citizenship ED 4820 Évaluation en salle de classe ED 4880 Littératie I ED 4888 Litteratie II – Education en francais II (Intermédiaire/Secondaire) ED 4900 Intégration de la langue au contenu ED 4961 Préparation pour le profession d'enseignement I ED 4962 Stage I ED 4971 Préparation pour le profession d'enseignement II ED 4972 Stage II **INTERMEDIATE/SENIOR CONCENTRATION (7-12) will take 4 of the following**: ED 4560 Sciences Humaines 1 ED 4570 Sciences Humaines 2 ED 4260 Intermediate/Senior Mathematics I ED 4270 Mathes 2 ED 4460 Sciences 1 ED 4470 Sciences 2 ED 4760 French Methods ED 4800 Teaching in a Core French, Immersion and French First Language in a Minority Context Setting **STUDY FOCI**: Students may complete a study focus in International, Indigenous, Early Learning or Adult Education by completing a six-week practicum in the specified area and one course beyond the 20 required for the BEd as outlined below:	ED 4962 Stage I ED 4971 Préparation pour le professionnel de l'enseignement II ED 4972 Stage II **INTERMEDIATE/SENIOR CONCENTRATION (7-12)** ED 4030 Intégration des arts ED 4060 Comprendre la santé sociale et émotionnelle chez les élèves ED 4110 Learners and Learning ED 4150 Inclusion en salle de classe ED 4200 Teaching for Science, Technology, Engineering and Math (STEM) ED 4490 Introduction to Indigenous Education ED 4630 Culture et société ED 4640 Educating for Global Citizenship ED 4820 Évaluation en salle de classe ED 4880 Littératie I ED 4888 Litteratie II – Education en francais II (Intermédiaire/Secondaire) ED 4900 Intégration de la langue au contenu ED 4961 Préparation pour le profession d'enseignement I ED 4962 Stage I ED 4971 Préparation pour le profession d'enseignement II ED 4972 Stage II **INTERMEDIATE/SENIOR CONCENTRATION (7-12) will take 4 of the following:** ED 4560 Sciences Humaines 1 ED 4570 Sciences Humaines 2 ED 4260 Intermediate/Senior Mathematics I ED 4270 Mathes 2 ED 4460 Sciences 1 ED 4470 Sciences 2 ED 4760 French Methods ED 4800 Teaching in a Core French, Immersion and French First Language in a Minority Context Setting **STUDY FOCI:** Students may complete a study focus in International, Indigenous, ~~Early Learning~~ or Adult Education by completing a six-week practicum in the specified area and one course beyond the 20 required for the BEd as outlined below:

CALENDAR & CURRICULUM CHANGE — Motion #15

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
INTERNATIONAL EDUCATION ED 4620 International Education **INDIGENOUS EDUCATION** ED 4510 Integrating Indigenous Themes in the Curriculum K-12 **ADULT EDUCATION** One of the following: • ED 3630 The Adult Learner • ED 3640 Assessment of Adult Learning • ED 3680 Curriculum Development • ED 3730 Inclusion and Differentiation in Adult Learning EARLY LEARNING Ed 4336 – Developing Learning and Play in the Early Years (Ages 0-8)	**INTERNATIONAL EDUCATION** ED 4620 International Education **INDIGENOUS EDUCATION** ED 4510 Integrating Indigenous Themes in the Curriculum K-12 **ADULT EDUCATION** One of the following: • ED 3630 The Adult Learner • ED 3640 Assessment of Adult Learning • ED 3680 Curriculum Development • ED 3730 Inclusion and Differentiation in Adult Learning ~~EARLY LEARNING~~ ~~Ed 4336 – Developing Learning and Play in the Early Years (Ages 0-8)~~

Rationale for Change: Developing Learning and Play in the Early Years is a priority as recognized by early childhood researchers and school boards across the country, including the local educational authorities (a major employer of UPEI BEd graduates). BEd students entering the professional workforce with the teachings and understandings of ED 4336–Developing Learning and Play in the Early Years (Ages 0-8) will be better prepared for the teaching profession and will have a deeper understanding of different philosophical approaches to early childhood education. The research contributing to the addition ED-4336 is pedagogically strong and widely accepted across multiple education paradigms. This eliminates the Early Learning Study Foci. ED 4800 – L'enseignement dans les contextes de l'immersion en français, du français de base et du français langue première en milieu minoritaire will be removed from the Primary cohort as overlap has been identified in ED 4800 within the Primary cohort courses. ED 4800 will remain for the Intermediate/Secondary cohort.

Effective Term: SUMMER 2023 **Implications for Other Programs:** none

Impact on Students Currently Enrolled: none

Authorization	***Date:***
Departmental Approval: Bachelor of Education Committee	February 10, 2023
Faculty/School Approval: Faculty of Education Council	February 24, 2023
Faculty Dean's Approval: Dr. Debbie MacLellan, Dean (Interim)	February 24, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

CALENDAR & CURRICULUM CHANGE — Motion #16

Revision is for a: Calendar Entry Change

Faculty/School/Department: Education

Department/Program(s)/Academic Regulations: **Bachelor of Education (français langue seconde)**

MOTION: To revise the admission requirements and accepted teachables for the BEd (français langue seconde) program as submitted.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Bachelor of Education—français langue seconde ***NOTE: EFFECTIVE FOR SUMMER 2023 INTAKE*** **(i) Introduction** The Bachelor of Education–français langue seconde is a 12-month post-degree program consisting of 60 credit hours in Education with the program commencing in May of each year. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It provides the opportunity for students to focus their studies in Primary/Elementary (grades K-6), or Intermediate/Senior (grades 7-12), and International, Indigenous, or Adult Education. **(ii) Admission Requirements** Applicants must have completed the requirements for their undergraduate degree from an approved registered university and have the degree conferred before June 30. Applicants must have an overall average of not less than 70% (at least between C+ and B-) computed on the 20 highest grades of the last 22 courses (3 semester hours of credit each). Applicants who have an average of less than 70% may be considered on a case-by-case basis. Graduate study may be taken into consideration for admission requirements. Applicants who have completed a degree where the language of instruction was not French must have at least 6 semester hours in French (at least 3 semester hours in a writing-intensive course in any discipline). However, applicants who receive, in the last year, a level B2 (at least 70% in all categories) on DELF are not required to complete 6 semester hours in French.	Bachelor of Education—français langue seconde ***NOTE: EFFECTIVE FOR SUMMER 2023 INTAKE*** **(i) Introduction** The Bachelor of Education–français langue seconde is a 12-month post-degree program consisting of 60 credit hours in Education with the program commencing in May of each year. This program is designed to provide the variety of courses and extended field experiences through which students can develop the knowledge and skills needed to teach in the modern classroom. It provides the opportunity for students to focus their studies in Primary/Elementary (grades K-6), or Intermediate/Senior (grades 7-12), and International, Indigenous, or Adult Education. **(ii) Admission Requirements** Applicants must have completed the requirements for their undergraduate degree from an approved registered university and have the degree conferred before June 30. Applicants must have an overall average of not less than 70% (at least between C+ and B-) computed on the 20 highest grades of the last 22 courses (3 semester hours of credit each). Applicants who have an average of less than 70% may be considered on a case-by-case basis. Graduate study may be taken into consideration for admission requirements. Applicants who have completed a degree where the language of instruction was not French must have at least 6 semester hours in French (at least 3 semester hours in a writing-intensive course in any discipline). However, applicants who receive, in the last year, a level B2 (at least 70% in all categories) on DELF are not required to complete 6 semester hours in French.

CALENDAR & CURRICULUM CHANGE — Motion #16

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Applicants whose first language is not English must also satisfy the UPEI English Language Proficiency requirements. Applicants must pass an oral and written proficiency test in French before admission to the specialization is confirmed. Applicants must have completed academic courses in subjects taught in the school system which satisfy the requirements for the program level (Primary/Elementary or Intermediate/Senior) into which they seek admission, as follows: **Primary/Elementary (grades K-6)** 3 credit hours in Math 6 credit hours in Social Studies (as listed below); 6 credit hours in Science (as listed below) (3 of which must be a lab-based science); and a course in Developmental Psychology or equivalent. **Note 1:** Applicants are strongly encouraged to take Education 2130 (Introduction to Education) at UPEI (or equivalent at other universities) prior to beginning the BEd program. Courses in Fine Arts or Music will also be considered assets**.** **Intermediate\Senior (grades 7-12)** • At least 6 credit hours in Math. Applicants must have appropriate coursework in two defined teachable areas as outlined below: • at least 42 credit hours of university coursework in a first teachable area as listed below; and • at least 18 credit hours of university coursework in a second teachable area as listed below, preferably in a teachable area different from the first. The following courses* relate to teachable areas: **English** (includes Communications, Creative Writing, Drama, Journalism, linguistic, Media Studies, and Theatre);	Applicants whose first language is not English must also satisfy the UPEI English Language Proficiency requirements. Applicants must pass an oral and written proficiency test in French before admission to the specialization is confirmed. Applicants must have completed academic courses in subjects taught in the school system which satisfy the requirements for the program level (Primary/Elementary or Intermediate/Senior) into which they seek admission, as follows: **Primary/Elementary (grades K-6)** 3 credit hours in Math 6 credit hours in Social Studies (as listed below); 6 credit hours in Science (as listed below) (3 of which must be a lab-based science); and a course in Developmental Psychology or equivalent. **Note 1:** Applicants are strongly encouraged to take Education 2130 (Introduction to Education) at UPEI (or equivalent at other universities) prior to beginning the BEd program. Courses in Fine Arts or Music will also be considered assets**.** **Intermediate\Senior (grades 7-12)** • At least ~~6~~ 3 credit hours in Math. Applicants must have appropriate coursework in two defined teachable areas as outlined below: • at least 42 credit hours of university coursework in a first teachable area as listed below; and • at least 18 credit hours of university coursework in a second teachable area as listed below, preferably in a teachable area different from the first. The following courses* relate to teachable areas: ~~**English** (includes Communications, Creative Writing, Drama, Journalism, linguistic, Media Studies, and Theatre);~~

CALENDAR & CURRICULUM CHANGE — Motion #16

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Social Studies (includes Acadian Studies, Anthropology, Canadian Studies, Economics, Environmental Studies, Family Science, Geography, Global Studies, History, Indigenous Studies, Law, Philosophy, Political Science, Religious Studies, Sociology, and Diversity and Social Justice Studies); **Science** (includes Chemistry, Biology, Foods and Nutrition, Forestry, Geology/Earth Sciences, Health Sciences, Kinesiology, Oceanography, Environmental Science, Agriculture, and Physics); **Mathematics** (includes Mathematics, Physics, Statistics, and Computer Science); **French**; and **Music** (offered through the Bachelor of Music Education program in the Faculty of Arts). *Courses not listed may be evaluated on a case-by-case basis.	**Social Studies** (includes Acadian Studies, Anthropology, Canadian Studies, Economics, Environmental Studies, Family Science, Geography, Global Studies, History, Indigenous Studies, Law, Philosophy, Political Science, Religious Studies, Sociology, and Diversity and Social Justice Studies); **Science** (includes Chemistry, Biology, Foods and Nutrition, Forestry, Geology/Earth Sciences, Health Sciences, Kinesiology, Oceanography, Environmental Science, Agriculture, and Physics); **Mathematics** (includes Mathematics, Physics, Statistics, and Computer Science); **French**; and **Music** (offered through the Bachelor of Music Education program in the Faculty of Arts). *Courses not listed may be evaluated on a case-by-case basis.

Rationale for Change: 1. The Credit Hours Change: Applicants to the English Bachelor of Education program only require 3 semester hours in Mathematics. For fairness across the BEd programs, the BEd (français langue seconde) admission requirements should be amended to the same math requirement.

2. The Removing English as a Teachable Change: As Intermediate/Senior BEd (français langue seconde) students are not being trained to teach in English settings, and as they are not offered English methods within their required courses, English is not a relevant teachable for the program and should be removed from the list of accepted teachables.

Effective Term: SUMMER 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Bachelor of Education Committee	February 10, 2023
Faculty/School Approval: Faculty of Education Council	February 24, 2023
Faculty Dean's Approval: Dr. Debbie MacLellan, Dean (Interim)	February 24, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

SUMMARY OF FACULTY OF ENGINEERING MOTION #'S 17-63

Faculty of Sustainable Design Engineering
April 2023 Senate Submission
Summary of changes

1. Course Deletion: SDE-8230 Tech Management, Entrepreneurship
2. New Course: ENGN-4020 Quality Control/Project Management
3. New Course: ENGN-4021 Engineering Management
4. New Course: ENGN-4030 Contemporary Topics in Sustainable Design Engineering
5. New Course: ENGN-4031 User Centred Engineering Design
6. New Course: ENGN-4040 Design of Experiments
7. New Course: ENGN-4050 Engineering Research Methods
8. New Course: ENGN-4060 Design of Energy Systems
9. New Course: ENGN-4061 Optimization Energy Infrastructure
10. New Course: ENGN-4062 Solar Buildings/Neighbourhood
11. New Course: ENGN-4063 Contemporary Topics in Sustainable Energy
12. New Course: ENGN-4070 Novel Engineered Materials
13. New Course: ENGN-4080 Industrial Machine Vision
14. New Course: ENGN-4081 Modern Mechatronic Systems
15. New Course: ENGN-4100 Biofuel and Biomass Technology
16. New Course: ENGN-4101 Advanced Bioresource Engineering
17. New Course: SDE-8840 Sustainable Tech Dev & Commercialization
18. Course Revision: ENGN-3430 Tech Management, Entrepreneurship
19. Course Revision: ENGN-4840 Sustainable Tech Dev & Commercialization
20. Course Revision: SDE-8020 Quality Control/Project Management
21. Course Revision: SDE-8021 Engineering Management
22. Course Revision: SDE-8030 Contemporary Topics in Sustainable Design Engineering
23. Course Revision: SDE-8031 User Centred Engineering Design
24. Course Revision: SDE-8040 Design of Experiments
25. Course Revision: SDE-8050 Engineering Research Methods
26. Course Revision: SDE-8060 Design of Energy Systems
27. Course Revision: SDE-8061 Optimization Energy Infrastructure
28. Course Revision: SDE-8062 Solar Buildings/Neighbourhood
29. Course Revision: SDE-8063 Contemporary Topics in Sustainable Energy
30. Course Revision: SDE-8070 Novel Engineered Materials
31. Course Revision: SDE-8080 Industrial Machine Vision
32. Course Revision: SDE-8081 Modern Mechatronic Systems
33. Course Revision: SDE-8100 Biofuel and Biomass Technology
34. Course Revision: SDE-8101 Advanced Bioresource Engineering
35. Course Revision: SDE-8310 Advanced Fabrication Techniques
36. Course Revision: SDE-8320 Control System Design
37. Course Revision: SDE-8330 Innovations in Biomedical Engineering
38. Course Revision: SDE-8350 Advanced Robotic Dynamic & Control
39. Course Revision: SDE-8370 Fluid Power Control
40. Course Revision: SDE-8410 Macro Energy Systems
41. Course Revision: SDE-8440 Advanced Energy Storage
42. Course Revision: SDE-8450 Fluid Load on Energy Structures
43. Course Revision: SDE-8470 Micro Grids
44. Course Revision: SDE-8510 Geoinformatics in Bioresource
45. Course Revision: SDE-8530 Fundamentals Agri Machinery

SUMMARY OF FACULTY OF ENGINEERING MOTION #'S 17-63

46. Course Revision: SDE-8550 Chemical/Biological Processes
47. Course Revision: SDE-8830 Biomedical Signal Processing
48. Revised Calendar Entry – Doctor of Philosophy in Sustainable Design Engineering

Description of changes:

All changes are associated with *Graduate Academic Regulation 14: Cross-level Listing* to allow for the cross-level listing of courses between the FSDE's undergraduate and graduate programs.

- New Course Proposals (2-16) and Course Revisions (20-34)

  New ENGN 4000-level courses (2-16) are being created as cross-level listings to existing graduate courses (20-34) so that an undergraduate and a graduate level version of each course can be delivered as per Graduate Academic Regulation 14. The existing graduate level courses are being revised to recognize the cross-level listing.

- Course Revisions (35-47)

  Existing SDE 8000-level courses (35-47) are being revised to include "permission of the instructor" as a prerequisite requirement so that the instructor can ensure that the student has the required prerequisite knowledge. They are also being revised to confirm that the courses are not eligible for the PhD-SDE program; they are only eligible for the MSc-SDE program.

- New Course Proposal (17) and Course Revision (19)

  A new SDE 8840 course (17) is being created as a cross-level listing to an existing undergraduate course, ENGN 4840 (19), so that an undergraduate and a graduate level version of the course can be delivered as per Graduate Academic Regulation 14. The existing undergraduate level course is being revised to recognize the cross-level listing.

- Course Revision (18) and Course Deletion (1)

  ENGN 3430 (18) is being revised to remove the existing cross-level listing with SDE 8230. At the time the original cross-level listing was created, ENGN 3430 was a 4000-level course (ENGN 4230). This cross-level listing is now not appropriate and is no longer consistent with Graduate Academic Regulation 14. Consequently, this cross-level listing between these courses is now being removed. Without this cross-level listing, SDE 8230 is then no longer needed so it is being deleted.

- Revised Calendar Entry (48)

  The calendar entry for the PhD-SDE program is being revised to confirm which courses are not eligible as courses for PhD-SDE students.

CALENDAR & CURRICULUM CHANGE — Motion #17

Revision is for a: **Course Deletion**

Faculty/School/Department: **Engineering**

Department/Program(s)/Academic Regulations: **Faculty of Sustainable Design Engineering**

MOTION: That SDE-8230 be deleted as it is no longer needed in the program.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8230: Technology Management & Entrepreneurship This course provides an overview on how to start and sustain a technology-oriented company. Topics discussed will include the role of technology in society, intellectual property, patents, business plans, financial planning, sources of capital, business structure, liability, tax implications, sales, marketing, operational and human resource management. This course will be taught using problem-based and experiential learning strategies with involvement from real life entrepreneurs as motivators and facilitators. Graduate-level project will be defined. Cross-listed with Engineering 3430; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	~~**SDE-8230: Technology Management & Entrepreneurship**~~ ~~This course provides an overview on how to start and sustain a technology-oriented company. Topics discussed will include the role of technology in society, intellectual property, patents, business plans, financial planning, sources of capital, business structure, liability, tax implications, sales, marketing, operational and human resource management. This course will be taught using problem-based and experiential learning strategies with involvement from real life entrepreneurs as motivators and facilitators. Graduate-level project will be defined. Cross-listed with Engineering 3430; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3~~

Rationale for Change: The cross-level listing of SDE-8230 was originally to a 4000-level course (ENGN 4230) which has since been changed to a 3000-level course (ENGN 3430). The cross-level listing between SDE 8230 and ENGN 3430 is now not appropriate and is also no longer consistent with Graduate Academic Regulation 14. Consequently, this cross-level listing between these courses is now being removed. Without this cross-level listing, SDE 8230 is then no longer needed so it is being deleted.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: This course will no longer be available in the graduate program.

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL

Motion #18

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering**

MOTION: To approve ENGN 4020 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8020.

Course Number and Title	ENGN 4020 Quality Control/Project Management
Description	This course is an introduction to the most widely accepted project management practices in the workforce today. The student will learn the industrially accepted techniques associated with the management of time, cost, risk, and scope in order to achieve total project stakeholder satisfaction. The goal in this course is to prepare students with the most efficient and effective project management practices by applying these techniques to their graduate research work, and in so doing greatly increase their likelihood of managing successful projects during their careers.
Cross-Level Listing	SDE 8020. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8020) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4020 Quality Control/Project Management

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - Over 600 results under the topic "Project Management"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 21,000 results searching "project management" OR "quality control"
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 91,000 results for "project management" OR "quality control" published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
        - EBSCO Discovery Service (OneSearch)
        - Academic Search Complete
            - over 16,000 peer reviewed results searching engineer* AND ("project management" OR "quality control") from within the last 10 years
            - Subject terms search of (Project management OR Quality control) AND Engineering,

with all three subject terms exploded to include narrower terms, returned over 2000 peer-reviewed results published in the last 10 years
- Gale OneFile Academic
- Sage Research Methods
- Scopus

o full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
- Elsevier (ScienceDirect)
  - over 24,000 results searching (engineer OR engineers OR engineering) AND ("project management" OR "quality control"), filtered to the last 10 years and the Engineering and Energy subject fields.
- Wiley
- Springer
- Sage
- Association of Computing Machinery (ACM Digital Library)
  - over 5000 results using keywords engineer* AND (“project management” OR “quality control”) published in the last 10 years
- Institute of Physics (IOP)
- American Chemical Society (ACS Web Editions and SciFinder)
- Royal Society of Chemistry
- American Geosciences Institute (GeoRef and GeoScienceWorld)
- American Mathematical Society (MathSciNet)

o Other resources:
- Streaming Video collections including:
  - Academic Videos Online (Proquest)
  - Audio Cine Films
  - Criterion on Demand
  - JoVE
  - NFB Campus
- OED Online
- Business Source Complete (journal articles and index)
- Canadian Business & Current Affairs
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as:
  - Canadian Patent Database
  - United States Patent and Trademark Office database
  - MEDLINE
  - SCOAP^3

We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none

NEW COURSE PROPOSAL

Motion #18

- Library Administrative/Research Support
    - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____For each of _n/a____ consecutive years
- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #19

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4021 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8021.

Course Number and Title	ENGN 4021 Engineering Management
Description	This course is an introduction to the most widely accepted engineering management practices in the workforce today. Through lectures, case studies, guest speakers, and facilitated discussion, students will develop managerial knowledge and skills and be exposed to a spectrum of corporate activities in the engineering environment. Topics presented in this course include strategic management of research and development, organizational management, knowledge, risk and IP management, new product development, globalization, ethics, project management in a technology-based organization. This course will focus on "management for future engineering leaders" and examine national guidelines, practice engineering team dynamics, apply quantitative quality and supply chain concepts, and present financial/accounting basics for engineers.
Cross-Level Listing	SDE 8021. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8021) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4021 Engineering Management

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - 7339 results when searching keywords "engineering AND (leadership OR management)", filtering on the topics "Team Management", "Leadership and Management", "Organizational Leadership", "Governance, Risk Management and Compliance", "Project Management", "Product Management", "Project & Product Management", "Executive Coaching", and "Engineering" along with subfields such as Data, Chemical, Electrical, Civil, Materials, Systems, and Mechanical Engineering
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 15,000 results searching "leader* OR manage*"
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 214,000 results for engineer* AND (manage* OR leader*) published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:

- EBSCO Discovery Service (OneSearch)
- Academic Search Complete
  - over 251,000 peer reviewed results searching engineer* AND (leader* OR manage*) from within the last 10 years
- Gale OneFile Academic
- Sage Research Methods
- Scopus

o full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:

- Elsevier (ScienceDirect)
  - over 272,000 results searching (engineer OR engineers OR engineering) AND (leader OR leadership OR manage OR manager OR management), filtered to the last 10 years and the Engineering, Energy, and Chemical Engineering subject fields.
- Wiley
- Springer
- Sage
- Association of Computing Machinery (ACM Digital Library)
  - over 168,000 results using keyword search ((manag* OR lead*) AND engineer*) published in the last 10 years
- Institute of Physics (IOP)
- American Chemical Society (ACS Web Editions and SciFinder)
- Royal Society of Chemistry
- American Geosciences Institute (GeoRef and GeoScienceWorld)
- American Mathematical Society (MathSciNet)

o Other resources:

- Streaming Video collections including:
  - Academic Videos Online (Proquest)
  - Audio Cine Films
  - Criterion on Demand
  - JoVE
  - NFB Campus
- OED Online
- Business Source Complete (journal articles and index)
- Canadian Business & Current Affairs
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as:
  - Canadian Patent Database
  - United States Patent and Trademark Office database
  - MEDLINE
  - SCOAP[3]

We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #20

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4030 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8030.

Course Number and Title	ENGN 4030 Contemporary Topics in Sustainable Design Engineering
Description	In this course students will be exposed to and examine the concepts underlying sustainable design engineering as they pertain to engineering practice and in particular engineering research and the development of new technologies. Sustainable design engineering can be defined as an engineering design process which considers not only the key performance indicators and functional characteristics of the system being developed but also the environmental, social and economic context and impacts of the system. Recent advances in sustainability research have focused on the complex interactions between these areas, evolving from "green engineering" to a full consideration of sustainability. In order to develop sustainable solutions, engineers and researchers must be able to critically evaluate their work in this context. To this end, students will examine case studies and relevant readings on such topics as sustainability indicators, techno-economic and life cycle assessment, stakeholder engagement, real time technology assessment, engineering justice, and design for sustainability. While approaches for addressing the specific areas of environmental, social and economic sustainability will be covered, the focus of the course will be on the interactions between these areas. A key outcome of this course will be a paper critically examining the student's research topic from the perspective of sustainable design engineering.
Cross-Level Listing	SDE 8030. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8030) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students
Resources Required: None.

NEW COURSE PROPOSAL

Motion #20

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle.	February 15, 2023

NEW COURSE PROPOSAL — Motion #20

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4030 Contemporary Topics in Sustainable Design Engineering

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - Over 1100 results when searching keywords "sustainable design engineering" OR "sustainability" OR "life cycle assessment" OR "stakeholder engagement" OR "engineering justice", filtering on the topics "Engineering", "Electrical Engineering", "Economics", "Materials Engineering", "Chemical Engineering", "Civil Engineering", "Mechanical Engineering", and "Systems Engineering"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - Over 112,000 results when searching keywords "sustainable design engineering" OR "sustainability" OR "life cycle assessment" OR "stakeholder engagement" OR "engineering justice"
            - IEEE/IET IEL Electronic Library (Xplore)
            - Over 47,000 results when searching the keyword sustainab*
              from the last 10 years
            - Over 400 results when searching the keywords (engineering justice)
              from the last 10 years

        - Over 300 results when searching the key phrase "life cycle assessment" from the last 10 years
    - various engineering standards maintained through the MADCAD platform
- licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
    - EBSCO Discovery Service (OneSearch)
    - Academic Search Complete
        - Over 299,000 peer reviewed results when searching ((“sustainable design” OR “stakeholder engagement”) AND engineer*) OR sustainab* OR “techno-economic assessment” OR engineering W5 justice OR “life cycle assessment” from the past 10 years
    - Gale OneFile Academic
    - Sage Research Methods
    - Scopus
- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
    - Elsevier (ScienceDirect)
        - Over 246,000 results searching (engineer OR engineering) AND ((sustainable OR sustainability OR "sustainable design") OR "life cycle assessment" OR "techno-economic assessment" OR "stakeholder engagement") filtered to the last 10 years and the Engineering, Energy, and Chemical Engineering subject areas.
    - Wiley
    - Springer
    - Sage
    - Association of Computing Machinery (ACM Digital Library)
        - Over 185,000 results searching ((“sustainable design” OR “stakeholder engagement”) AND engineer*) OR sustainab* OR “techno-economic assessment” OR engineering W5 justice OR “life cycle assessment” from the last 10 years
    - Institute of Physics (IOP)
    - American Chemical Society (ACS Web Editions and SciFinder)
    - Royal Society of Chemistry
    - American Geosciences Institute (GeoRef and GeoScienceWorld)
    - American Mathematical Society (MathSciNet)
- Other resources:
    - Streaming Video collections including:
        - Academic Videos Online (Proquest)
        - Audio Cine Films
        - Criterion on Demand
        - JoVE
        - NFB Campus
    - OED Online
    - Business Source Complete (journal articles and index)
    - Canadian Business & Current Affairs

- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as:
  - Canadian Patent Database
  - United States Patent and Trademark Office database
  - MEDLINE
  - SCOAP3

  We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ____n/a_____ For each of _n/a____ consecutive years
- Annual: ____n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement? While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #21

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4031 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8031.

Course Number and Title	ENGN 4031 User Centred Engineering Design
Description	User-centred design offers a powerful and systematic approach to understanding users and their needs and delivering effective design solutions in many domains including engineering, technology and health sciences. This course will introduce students to a variety of principles, practices and research methods for designing, developing and evaluating products, systems and solutions based on the users' needs, and context. Students will learn human factors, ergonomics, cognitive and perceptual psychology principles for designing products, information displays and complex systems. Students will be exposed to various subjective and objective metrics and methods for evaluations and usability studies. Students will also be introduced to apply user-centred design for developing sustainable products and systems.
Cross-Level Listing	SDE 8031. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8031) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4031 User Centred Engineering Design

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - 617 results when searching key phrase "user-centered design", filtering on subfields of engineering and related key phrases such as "User Experience (UX)", "Product Design", "Design Thinking" and "Interface Design"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 3600 results searching "user-centered design"
            - over 7300 results searching "human factors"
            - over 5000 results searching "user experience"
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 18,000 results for "user-centered design" OR "human factors" OR "user experience" published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:

- EBSCO Discovery Service (OneSearch)
- Academic Search Complete
  - over 4100 peer reviewed results searching
    ("user centered design" OR "user experience" OR "human factors") AND engineer*
    from within the last 10 years
- Gale OneFile Academic
- Sage Research Methods
- Scopus

o full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:

- Elsevier (ScienceDirect)
  - over 13,000 results searching
    (engineer OR engineers OR engineering) AND ("user centered design" OR "user experience" OR "human factors"),
    filtered to the last 10 years and the Engineering and Chemical Engineering subject fields.
- Wiley
- Springer
- Sage
- Association of Computing Machinery (ACM Digital Library)
  - over 25,000 results using keyword search
    engineer* AND ("user centered design" OR "user experience" OR "human factors")
    published in the last 10 years
- Institute of Physics (IOP)
- American Chemical Society (ACS Web Editions and SciFinder)
- Royal Society of Chemistry
- American Geosciences Institute (GeoRef and GeoScienceWorld)
- American Mathematical Society (MathSciNet)

o Other resources:

- Streaming Video collections including:
  - Academic Videos Online (Proquest)
  - Audio Cine Films
  - Criterion on Demand
  - JoVE
  - NFB Campus
- PsycInfo
- OED Online
- Business Source Complete (journal articles and index)
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
    - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #22

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4040 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8040.

Course Number and Title	ENGN 4040 Design of Experiments
Description	This course focuses on the design, implementation, and analysis of engineering, scientific, and computer-based experiments. The course will examine the proper and scientific approach to experimentation, modeling, simulation, and analysis of data. Various designs are discussed, and their respective advantages and disadvantages are noted. Factorial designs and sensitivity analysis will be studied in detail because of its relevance to various industries. Use of software for designing and analyzing experiments will also be used. For experiments that involved mainly physical quantities and natural phenomena, techniques of dimensional analysis will also be introduced.
Cross-Level Listing	SDE 8040. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8040) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4040 Design of Experiments

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - Nearly 1000 results searching
              "experimental design" OR "factorial design" OR "sensitivity analysis"
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 16,000 results for
              (experiment* NEAR/2 design) OR "factorial design" OR "sensitivity analysis"
              published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
        - EBSCO Discovery Service (OneSearch)
        - Academic Search Complete
            - Subject terms search using
              (Experimental design [exploded] OR Sensitivity analysis) AND Engineering [exploded]
              returned over 1700 peer-reviewed results from within the last 10 years
                - Exploded here means including both subject term and narrower terms below it, all separated by OR

        - Factorial design is a narrower term under Experimental design in ASC's subject terms controlled vocabulary
    - Gale OneFile Academic
    - Sage Research Methods
    - Scopus
- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
    - Elsevier (ScienceDirect)
        - over 107,000 results searching
          (engineer OR engineers OR engineering) AND (("experimental design" OR "experiment design" OR "design of experiments") OR "factorial design" OR "sensitivity analysis"),
          filtered to the last 10 years and the Engineering, Energy and Chemical Engineering subject fields.
    - Wiley
    - Springer
    - Sage
    - Association of Computing Machinery (ACM Digital Library)
        - over 184,000 results using keyword search
          engineer* AND ((experiment* design) OR "factorial design" OR "sensitivity analysis")
          published in the last 10 years
    - Institute of Physics (IOP)
    - American Chemical Society (ACS Web Editions and SciFinder)
    - Royal Society of Chemistry
    - American Geosciences Institute (GeoRef and GeoScienceWorld)
    - American Mathematical Society (MathSciNet)
- Other resources:
    - Streaming Video collections including:
        - Academic Videos Online (Proquest)
        - Audio Cine Films
        - Criterion on Demand
        - JoVE
        - NFB Campus
    - PsycInfo
    - OED Online
    - Business Source Complete (journal articles and index)
    - CAB Abstracts (index with full-text ebooks, proceedings)
    - Statistics Canada data through NESSTAR and CHASS
    - New York Times, as well as many more regional, national, and international newspapers and news services
    - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none

NEW COURSE PROPOSAL — Motion #22

- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #23

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4050 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8050.

Course Number and Title	ENGN 4050 Engineering Research Methods
Description	This course will introduce students to the elements of a research project and will focus on quantitative research methodologies. Students will practice the planning, implementation, analysis, and documentation for a research project of their own design. Topics will include: performing a literature review, developing a hypothesis, creating a research plan, collecting data, analyzing the results, and compiling a research report. Students will use tools for quantitative data analysis and will explore reliability, validation, and verification concepts. Students will report findings in a technical presentation. The course encourages students to develop their research question and perform a sample experiment to apply lessons learned to their main research topic. Intellectual property rights and engineering ethics topics will be explored.
Cross-Level Listing	SDE 8050. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8050) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #23

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4050: Engineering Research Methods

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - Over 97,000 results when searching keywords "research methods" OR "experimental design" OR "technical presentation" OR ethics OR "intellectual property"
        - IEEE/IET IEL Electronic Library (Xplore)
            - Over 463,000 results for engineer* AND ("research methods" OR experiment* OR "technical presentation" OR ethic* OR "intellectual property") filtered to the past 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
        - EBSCO Discovery Service (OneSearch)
        - Academic Search Complete
            - Over 723,000 peer reviewed results when searching engineer* AND ("research methods" OR experiment* OR "technical presentation" OR ethic* OR "intellectual property") from the past 10 years

- Subject search of
  (Research methodology [exploded] OR Experimental design [exploded] OR Engineering ethics OR Intellectual property [exploded]) AND Engineering [exploded]
  returned over 2700 peer reviewed results from the past 10 years
  - Exploded here means that Subject term and all narrower terms were added to search, divided by OR
- Gale OneFile Academic
- Sage Research Methods
- Scopus

o full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:

- Elsevier (ScienceDirect)
  - Nearly 647,000 results searching
    (engineer OR engineering) AND ("research methods" OR (experiment OR experimentation) OR "technical presentation" OR (ethics OR ethical) OR "intellectual property")
    filtered to the last 10 years and the Engineering, Energy, and Chemical Engineering subject areas.
- Wiley
- Springer
- Sage
- Association of Computing Machinery (ACM Digital Library)
  - Over 137,000 results searching
    engineer* AND (“research methods” OR experiment* OR “technical presentation” OR ethic* OR “intellectual property”)
    from the past 10 years
- Institute of Physics (IOP)
- American Chemical Society (ACS Web Editions and SciFinder)
- Royal Society of Chemistry
- American Geosciences Institute (GeoRef and GeoScienceWorld)
- American Mathematical Society (MathSciNet)

o Other resources:

- Streaming Video collections including:
  - Academic Videos Online (Proquest)
  - Audio Cine Films
  - Criterion on Demand
  - JoVE
  - NFB Campus
- OED Online
- Business Source Complete (journal articles and index)
- Canadian Business & Current Affairs
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as:
  - Canadian Patent Database

- United States Patent and Trademark Office database
- MEDLINE
- SCOAP[3]

We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ____n/a_____ For each of _n/a____ consecutive years
- Annual: ____n/a_____
  - Per-year percentage increase in annual: _n/a_____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #24

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4060 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8060.

Course Number and Title	ENGN 4060: Design of Energy Systems
Description	This course focuses on the understanding of the physical processes underlying the energy conversion process from wind and solar energy. Students will have an advanced knowledge of aerodynamics and structural dynamics, and they will understand the main strategies used for controlling these machines over their complete operating range. A specific goal of the course is to provide students with a multidisciplinary vision on the physics of energy systems, and an understanding of the methods used for their modeling and simulation. A particular emphasis will be placed on design, and on the effects of design choices on the cost of energy.
Cross-Level Listing	SDE-8060. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8020) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/a	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4060: Design of Energy Systems

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - Nearly 300 results from searching key phrase "energy systems" filtering on "Engineering", "Electrical Engineering", "Materials Engineering", "Civil Engineering", "Chemical Engineering", "Mechanical Engineering", and "Systems Engineering"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - Over 6400 results when searching keywords "energy systems" AND design
            - Over 15,000 results when searching "structural dynamics" OR aerodynamics
            - Over 3200 results when searching (wind OR solar) AND energy
        - IEEE/IET IEL Electronic Library (Xplore)
            - Over 5200 results for "energy systems" AND design filtered to the past 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:

- EBSCO Discovery Service (OneSearch)
- Academic Search Complete
  - Over 6100 peer-reviewed results searching
    "energy systems" AND design
    from the last 10 years
  - Over 200 peer-reviewed results searching
    "energy systems" AND ("structural dynamics" OR aerodynamics)
- Gale OneFile Academic
- Sage Research Methods
- Scopus

o full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
- Elsevier (ScienceDirect)
  - over 42,000 results searching
    (engineer OR engineers OR engineering) AND ("energy systems" AND design)
    filtered to the last 10 years and the Engineering, and Energy
- Wiley
- Springer
- Sage
- Association of Computing Machinery (ACM Digital Library)
  - Over 1000 results searching
    engineer* AND ("energy systems" AND design)
    from the past 10 years
- Institute of Physics (IOP)
- American Chemical Society (ACS Web Editions and SciFinder)
- Royal Society of Chemistry
- American Geosciences Institute (GeoRef and GeoScienceWorld)
- American Mathematical Society (MathSciNet)

o Other resources:
- Streaming Video collections including:
  - Academic Videos Online (Proquest)
  - Audio Cine Films
  - Criterion on Demand
  - JoVE
  - NFB Campus
- OED Online
- Business Source Complete (journal articles and index)
- Canadian Business & Current Affairs
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as:
  - Canadian Patent Database
  - United States Patent and Trademark Office database
  - MEDLINE
  - SCOAP[3]

We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ____n/a_____ For each of _n/a____ consecutive years
- Annual: ____n/a_____
  - Per-year percentage increase in annual: _n/a_____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #25

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4061 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8061.

Course Number and Title	ENGN 4061: Optimization Energy Infrastructure
Description	The course aims to provide the knowledge about the application of various optimization methods in designing energy infrastructure. The course starts with the introduction to various optimization algorithms. Thereafter, the integration of energy modeling and simulation with optimization algorithms will be demonstrated. This course will also cover the optimization of distributed energy systems using single and multi-objective optimization methods. Several minor projects will be introduced to formulate the energy system optimization problem deciding design variables, objectives, and constraints.
Cross-Level Listing	SDE-8061. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8061) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle.	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4061: Optimization Energy Infrastructure

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - o substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - 993 results searching
              energy AND (system OR infrastructure) AND optimization
              and filtering to include the different subfields of engineering
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 300 results searching
              energy AND (system OR infrastructure) AND optimiz*
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 60,000 results for
              energy AND (system OR infrastructure) AND optimiz*
              published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
        - EBSCO Discovery Service (OneSearch)
        - Academic Search Complete
            - over 61,000 peer reviewed results searching
              energy AND (system OR infrastructure) AND optimiz*
              from within the last 10 years

- Gale OneFile Academic
- Sage Research Methods
- Scopus

- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
  - Elsevier (ScienceDirect)
    - over 348,000 results searching
      (engineer OR engineers OR engineering) AND (energy AND (system OR infrastructure) AND (optimize OR optimization OR optimizing)),
      filtered to the last 10 years and the Engineering, Chemical Engineering, and Energy subject fields.
  - Wiley
  - Springer
  - Sage
  - Association of Computing Machinery (ACM Digital Library)
    - over 27,000 results using keyword search
      engineer* AND energy AND (system OR infrastructure) AND optimiz*
      published in the last 10 years
  - Institute of Physics (IOP)
  - American Chemical Society (ACS Web Editions and SciFinder)
  - Royal Society of Chemistry
  - American Geosciences Institute (GeoRef and GeoScienceWorld)
  - American Mathematical Society (MathSciNet)
- Other resources:
  - Streaming Video collections including:
    - Academic Videos Online (Proquest)
    - Audio Cine Films
    - Criterion on Demand
    - JoVE
    - NFB Campus
  - OED Online
  - Business Source Complete (journal articles and index)
  - CAB Abstracts (index with full-text ebooks, proceedings)
  - Statistics Canada data through NESSTAR and CHASS
  - New York Times, as well as many more regional, national, and international newspapers and news services
  - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP[3]. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

NEW COURSE PROPOSAL — Motion #25

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #26

Faculty/School: **Sustainable Design Engineering**
Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**
MOTION: To approve ENGN 4062 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8062.

Course Number and Title	ENGN 4062: Solar Buildings/Neighbourhood
Description	The course is aimed to discuss the design considerations in designing solar buildings and neighborhoods. The course will start with the historical background of solar neighborhoods in modern and ancient history. Thereafter, passive solar design considerations in various small and large scale buildings will be discussed. Principles of solar design such as building site setting, building shape, building envelopes, active and passive based heating and cooling techniques will be introduced. The active electrical and thermal energy generation and storage strategies will be discussed. Energy modeling and simulation tools used for the assessment of solar access of various building will be demonstrated. Various case studies related to solar buildings and neighborhood will be taken for assignments. For the term project, incorporation of solar strategies for modifying existing Canadian buildings and neighborhoods will be assigned to groups of students.
Cross-Level Listing	SDE-8062. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8062) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #26

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4062: Solar Buildings/Neighbourhood

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - 660 results searching
              solar AND (building OR neighborhood OR design)
              and filtering for the topics "Engineering", "Electrical Engineering", "Materials Engineering", "Civil Engineering", "Systems Engineering" and "Mechanical Engineering"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 2200 results searching
              solar AND (building OR neighborhood OR design)
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 14,000 results for
              solar AND (buildings OR neighborhood OR design)
              published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
        - EBSCO Discovery Service (OneSearch)
        - Academic Search Complete

        - almost 34,000 peer reviewed results searching
          solar AND (buildings OR neighborhood OR design)
          from within the last 10 years
      - Gale OneFile Academic
      - Sage Research Methods
      - Scopus
  - full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
      - Elsevier (ScienceDirect)
        - over 98,000 results searching
          (engineer OR engineers OR engineering) AND solar AND (buildings OR neighborhood OR neighborhoods OR design),
          filtered to the last 10 years and the Engineering and Energy subject fields.
      - Wiley
      - Springer
      - Sage
      - Association of Computing Machinery (ACM Digital Library)
        - over 3,300 results using keyword search
          engineer* AND solar AND (buildings OR neighborhood OR design)
          published in the last 10 years
      - Institute of Physics (IOP)
      - American Chemical Society (ACS Web Editions and SciFinder)
      - Royal Society of Chemistry
      - American Geosciences Institute (GeoRef and GeoScienceWorld)
      - American Mathematical Society (MathSciNet)
  - Other resources:
      - Streaming Video collections including:
        - Academic Videos Online (Proquest)
        - Audio Cine Films
        - Criterion on Demand
        - JoVE
        - NFB Campus
      - OED Online
      - Business Source Complete (journal articles and index)
      - CAB Abstracts (index with full-text ebooks, proceedings)
      - Statistics Canada data through NESSTAR and CHASS
      - New York Times, as well as many more regional, national, and international newspapers and news services
      - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support

NEW COURSE PROPOSAL — Motion #26

- *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #27

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4063 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8063.

Course Number and Title	ENGN 4063: Contemporary Topics in Sustainable Energy
Description	This broadly applicable course discusses global energy usage and exposes students to current trends in local and global sustainable energy initiatives (i.e., energy generation and storage) and applications. Present and future global energy consumption and related CO2 emissions are considered and discussed. Students will be exposed to and analyze case studies as well as develop and design their own globally relevant solution concepts. Students will ultimately gain an enhanced, quantitative appreciation for the challenges and opportunities related to global energy system decarbonization.
Cross-Level Listing	SDE-8063. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8063) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #27

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4063: Contemporary Topics in Sustainable Energy

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - 1134 results searching
              energy AND (sustainable OR sustainability OR consume OR consumption OR use OR usage OR renewable)
              and filtering for the topics "Engineering", "Electrical Engineering", "Materials Engineering", "Civil Engineering", "Chemical Engineering", "Systems Engineering" and "Mechanical Engineering"
            - 813 results searching
              ("carbon emissions" OR "carbon dioxide" emissions OR "CO2 emissions") OR decarbonization
              with the same filters
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 6200 results searching
              energy AND (sustainab* OR renew* OR consum*)
            - over 30,000 results searching
              ("carbon emissions" OR "carbon dioxide emissions" OR "CO2 emissions" OR decarboniz*)
        - IEEE/IET IEL Electronic Library (Xplore)

        - over 146,000 results for
          energy AND (sustainab* OR renew* OR consum*)
          published in the last 10 years
        - over 2000 results for
          ("carbon emissions" OR "carbon dioxide emissions" OR "CO2 emissions")
          published in the last 10 years
    - various engineering standards maintained through the MADCAD platform
- licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
    - EBSCO Discovery Service (OneSearch)
    - Academic Search Complete
        - over 156,000 peer reviewed results searching
          energy AND (sustain* OR renew* OR consum*) AND engineer* from within the last 10 years
        - over 9,000 peer reviewed results searching
          ("carbon emissions" OR "carbon dioxide emissions" OR "CO2 emissions") AND engineer*
          from within the last 10 years
    - Gale OneFile Academic
    - Sage Research Methods
    - Scopus
- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
    - Elsevier (ScienceDirect)
        - over 573,000 results searching
          energy AND (sustain OR sustainable OR sustainability OR renew OR renewable OR renewability OR consume OR consumption),
          filtered to the last 10 years and the Engineering, Chemical Engineering and Energy subject fields.
        - over 41,000 results searching
          (engineer OR engineering) AND ("carbon emissions" OR "carbon dioxide emissions" OR "CO2 emissions")
          with the same parameters
    - Wiley
    - Springer
    - Sage
    - Association of Computing Machinery (ACM Digital Library)
        - nearly 31,000 results using keyword search
          engineer* AND energy AND (sustainab* OR renew* OR consum*)
          published in the last 10 years
    - Institute of Physics (IOP)
    - American Chemical Society (ACS Web Editions and SciFinder)
    - Royal Society of Chemistry
    - American Geosciences Institute (GeoRef and GeoScienceWorld)
    - American Mathematical Society (MathSciNet)
- Other resources:
    - Streaming Video collections including:
        - Academic Videos Online (Proquest)

  - Audio Cine Films
  - Criterion on Demand
  - JoVE
  - NFB Campus
- OED Online
- Business Source Complete (journal articles and index)
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP[3]. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of __n/a____ consecutive years
- Annual: ___n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #28

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4070 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8070.

Course Number and Title	ENGN 4070: Novel Engineered Materials
Description	This course is an examination of the properties and processing of novel, engineered materials for sustainable applications. Fundamental concepts of solid-state diffusion, phase transformations, amorphous-to-crystalline kinetics, rapid solidification - for nuclear energy, more electric generation, renewable energy systems, additive manufacturing, modeling and simulation of the nanoscale will be discussed. As well, the relationships between the performance of electrical, optical, and magnetic devices and the microstructural and defect characteristics of the materials from which they are constructed will be explored. Focusing on functional materials for emerging technologies and emphasizing a device-design approach, applications will center around current research in the Faculty of Sustainable Design Engineering.
Cross-Level Listing	SDE 8070. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8070) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #28

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4070 Novel Engineered Materials

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - 1214 results searching
              "sustainable OR sustainability OR functional"
              and filtering for the topics "Engineering" and "Materials Engineering"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
            - over 2800 results searching
              "sustainab*"
              filtering on the subject "Materials engineering"
        - IEEE/IET IEL Electronic Library (Xplore)
            - over 94,000 results for
              "engineered materials"
              published in the last 10 years
            - over 4800 results for
              ("solid-state diffusion" OR "phase transformations" OR "amorphous-to-crystalline kinetics" OR "rapid solidification")
              published in the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:

- EBSCO Discovery Service (OneSearch)
- Academic Search Complete
  - over 600 peer reviewed results for
    (engineer* AND “engineered materials”)
    from the last 10 years
  - over 17,000 peer reviewed results for
    engineer* AND (“solid-state diffusion” OR “phase transformations” OR “amorphous-to-crystalline kinetics” OR “rapid solidification”)
    from the last 10 years
- Gale OneFile Academic
- Sage Research Methods
- Scopus

- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
  - Elsevier (ScienceDirect)
    - over 2500 results searching
      (engineer OR engineering) AND ("engineered materials") AND (sustainable OR sustainability OR application OR applications),
      filtered to the last 10 years and the Engineering, Chemical Engineering, and Materials Science subject fields.
    - over 57,000 results searching
      (engineer OR engineering) AND (“solid-state diffusion” OR “phase transformations” OR “amorphous-to-crystalline kinetics” OR “rapid solidification”)
      filtered to the last 10 years and the Engineering, Chemical Engineering, and Materials Science subject fields
  - Wiley
  - Springer
  - Sage
  - Association of Computing Machinery (ACM Digital Library)
  - Institute of Physics (IOP)
  - American Chemical Society (ACS Web Editions and SciFinder)
  - Royal Society of Chemistry
  - American Geosciences Institute (GeoRef and GeoScienceWorld)
  - American Mathematical Society (MathSciNet)
- Other resources:
  - Streaming Video collections including:
    - Academic Videos Online (Proquest)
    - Audio Cine Films
    - Criterion on Demand
    - JoVE
    - NFB Campus
  - OED Online
  - Business Source Complete (journal articles and index)
  - CAB Abstracts (index with full-text ebooks, proceedings)
  - Statistics Canada data through NESSTAR and CHASS

- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP[3]. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #29

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4080 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8080.

Course Number and Title	ENGN 4080: Industrial Machine Vision
Description	This course focuses on computer vision with an emphasis on techniques for automated inspection, object recognition, mechanical metrology, and robotics. Image processing courses typically focus for image enhancement, restoration, filtering, smoothing, etc. These topics will be covered to a certain degree but the main focus will be on image segmentation, feature extraction, morphological operators, recognition and photogrammetry. Issues related to the efficient software implementation of these techniques for real-time applications will also be addressed
Cross-Level Listing	SDE-8080. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8080) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #29

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4080 Industrial Machine Vision

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):
    - substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
        - O'Reilly Higher Education (formerly known as Safari)
            - Over 2600 results searching key phrase "computer vision" with no sorting for specific topics
            - 88 results listed under the topic "Computer Vision"
        - EBSCO
        - Elsevier
        - Wiley
        - Springer
        - Sage
        - ProQuest
        - Taylor & Francis
        - DesLibris
        - JSTOR
    - CRC Handbook of Chemistry & Physics (maintained through subscription)
    - licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
        - INSPEC
        - EI Compendex
        - AccessEngineering
        - IEEE/IET IEL Electronic Library (Xplore)
            - Over 61,000 results searching "computer vision" within the last 10 years
        - various engineering standards maintained through the MADCAD platform
    - licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
        - EBSCO Discovery Service (OneSearch)
            - Over 1000 results for books (physical and digital) available in the library collection and published in the last 10 years, searching key phrase "computer vision"
        - Academic Search Complete

        - Over 14,000 peer-reviewed results searching
          engineer* AND “computer vision”
          published within the past 10 years
        - Over 700 peer-reviewed results published in the last 10 years with subject terms search using terms
          Computer vision AND Engineering
          with both subject terms exploded (incorporating the narrower terms under each subject term)
    - Gale OneFile Academic
    - Sage Research Methods
    - Scopus
- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
    - Elsevier (ScienceDirect)
        - Over 27,000 results searching
          (engineer OR engineers OR engineering) AND “computer vision”
          published within the past 10 years and filtered on the subject areas “Engineering” and “Computer Science”
    - Wiley
    - Springer
    - Sage
    - Association of Computing Machinery (ACM Digital Library)
        - Over 19,000 result searching
          engineer* AND “computer vision”
          published within the last 10 years
    - Institute of Physics (IOP)
    - American Chemical Society (ACS Web Editions and SciFinder)
    - Royal Society of Chemistry
    - American Geosciences Institute (GeoRef and GeoScienceWorld)
    - American Mathematical Society (MathSciNet)
- Other resources:
    - Streaming Video collections including:
        - Academic Videos Online (Proquest)
        - Audio Cine Films
        - Criterion on Demand
        - JoVE
        - NFB Campus
    - OED Online
    - Business Source Complete (journal articles and index)
    - CAB Abstracts (index with full-text ebooks, proceedings)
    - Statistics Canada data through NESSTAR and CHASS
    - New York Times, as well as many more regional, national, and international newspapers and news services
    - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

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- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
    - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #30

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4081 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8081.

Course Number and Title	ENGN 4081: Modern Mechatronic Systems
Description	This course emphasizes how the abstract concepts of control theory and advanced design tools are used pragmatically in engineering practice in the mechatronics field. This course explores current topics of modern mechatronics, from the application of complex systems through dimensionality reduction, machine learning, and dynamical systems modelling to innovative methods and algorithms such as augmented reality, medical image analysis, and automated mapping of environments. Above all, this course is designed to entice students to think, ask questions of existing theory, and understand the essence of mechatronics systems. To this end, students will develop and implement practical, hands-on-with-hardware applications of the control system analysis and design principles that are the subject matter of their research. The findings and results of this project will be presented in the format of a manuscript that incorporates the research methodology, their final product, and critical thinking over the mechatronic topic.
Cross-Level Listing	SDE 8081. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8081) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

NEW COURSE PROPOSAL

Motion #30

Authorization	***Date:***
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4081: Modern Mechatronic Systems

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:
Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):

- substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
  - O'Reilly Higher Education (formerly known as Safari)
  - EBSCO
  - Elsevier
  - Wiley
  - Springer
  - Sage
  - ProQuest
  - Taylor & Francis
  - DesLibris
  - JSTOR
- CRC Handbook of Chemistry & Physics (maintained through subscription)
- licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
  - INSPEC
  - EI Compendex
  - AccessEngineering
    - over 1500 results searching with the keyword mechatronics
  - IEEE/IET IEL Electronic Library (Xplore)
    - over 45,000 results for mechatronic* published in the last 10 years
  - various engineering standards maintained through the MADCAD platform
- licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
  - EBSCO Discovery Service (OneSearch)
    - Almost 300,000 results searching keyword mechatronic* from within the last 10 years
  - Academic Search Complete
    - over 30,000 peer reviewed results searching keyword mechatronic* from within the last 10 years
  - Gale OneFile Academic

- Sage Research Methods
- Scopus

- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
  - Elsevier (ScienceDirect)
    - over 20,000 results searching the keyword mechatronics, filtered to the last 10 years and the Engineering subject field.
  - Wiley
  - Springer
  - Sage
  - Association of Computing Machinery (ACM Digital Library)
    - over 1,200 results using keyword search mechatronic* published in the last 10 years
  - Institute of Physics (IOP)
  - American Chemical Society (ACS Web Editions and SciFinder)
  - Royal Society of Chemistry
  - American Geosciences Institute (GeoRef and GeoScienceWorld)
  - American Mathematical Society (MathSciNet)
- Other resources:
  - Streaming Video collections including:
    - Academic Videos Online (Proquest)
    - Audio Cine Films
    - Criterion on Demand
    - JoVE
    - NFB Campus
  - OED Online
  - Business Source Complete (journal articles and index)
  - CAB Abstracts (index with full-text ebooks, proceedings)
  - Statistics Canada data through NESSTAR and CHASS
  - New York Times, as well as many more regional, national, and international newspapers and news services
  - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years

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- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #31

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4100 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8100.

Course Number and Title	ENGN 4100: Biofuel and Biomass Technology
Description	This course focuses on advanced concepts in understanding biofuels and bioenergy systems, renewable feedstocks, their production, availability and attributes for biofuel/bioenergy production, types of biomass derived fuels and energy, thermochemical conversion of biomass to heat, power and fuel, biochemical conversion of biomass to fuel environmental aspects of biofuel production, economics and life-cycle analysis of biofuel, and value adding of biofuel residues. Students will analyze, as well as prepare, case studies on biofuel production.
Cross-Level Listing	SDE 8100. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8100) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #31

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4100: Biofuel and Biomass Technology

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:
Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):

- substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
  - O'Reilly Higher Education (formerly known as Safari)
    - Over 200 results searching
      biofuel OR "biomass technology" OR bioenergy
      filtering on "Engineering", "Science", "Fuel Cells", "Electrical Engineering", "Materials Engineering", "Biology", "Chemical Engineering", "Green Business Practices", "Control Systems", and "Systems Engineering"
  - EBSCO
  - Elsevier
  - Wiley
  - Springer
  - Sage
  - ProQuest
  - Taylor & Francis
  - DesLibris
  - JSTOR
- CRC Handbook of Chemistry & Physics (maintained through subscription)
- licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
  - INSPEC
  - EI Compendex
  - AccessEngineering
    - Over 1900 results searching
      biofuel OR "biomass technology" OR bioenergy
  - IEEE/IET IEL Electronic Library (Xplore)
    - Over 2000 results searching
      biofuel OR "biomass technology" OR bioenergy
      published in the last 10 years
  - various engineering standards maintained through the MADCAD platform
- licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
  - EBSCO Discovery Service (OneSearch)
  - Academic Search Complete

        - over 23,000 peer-reviewed results searching
          biofuel OR “biomass technology” OR bioenergy
          from within the last 10 years
      - Gale OneFile Academic
      - Sage Research Methods
      - Scopus
  - full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
      - Elsevier (ScienceDirect)
        - Over 45,000 results searching
          (engineer OR engineers OR engineering) AND (biofuel OR “biomass technology” OR bioenergy)
          filtered to the last 10 years and the Engineering, Energy, Chemical Engineering, Environmental Science, and Agricultural and Biological Sciences subject fields.
      - Wiley
      - Springer
      - Sage
      - Association of Computing Machinery (ACM Digital Library)
        - Over 160 results searching
          engineer* AND (biofuel OR “biomass technology” OR bioenergy)
          published in the last 10 years
      - Institute of Physics (IOP)
      - American Chemical Society (ACS Web Editions and SciFinder)
      - Royal Society of Chemistry
      - American Geosciences Institute (GeoRef and GeoScienceWorld)
      - American Mathematical Society (MathSciNet)
  - Other resources:
      - Streaming Video collections including:
        - Academic Videos Online (Proquest)
        - Audio Cine Films
        - Criterion on Demand
        - JoVE
        - NFB Campus
      - OED Online
      - Business Source Complete (journal articles and index)
      - CAB Abstracts (index with full-text ebooks, proceedings)
      - Statistics Canada data through NESSTAR and CHASS
      - New York Times, as well as many more regional, national, and international newspapers and news services
      - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
    - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #32

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **Faculty of Sustainable Design Engineering, BScSDE**

MOTION: To approve ENGN 4101 as a new undergraduate course and to cross-level list it with the existing graduate-level course, SDE 8101.

Course Number and Title	ENGN 4101: Advanced Bioresource Engineering
Description	The quest for food security, renewable energy, climate change and demand for sustainable fuels has increased focus on biomass conversion and technological interventions to cope with these challenges. This course covers advanced topics in bioresource engineering to acquire an understanding of sustainability challenges in bioresource sector and propose optimal climate smart solutions by implementing technologies and processes. The course is delivered in three complementary modules: i) deep learning and artificial intelligence for sustainable food production, ii) biofuels and biomaterials, and iii) the design of biomass conversion reactors.
Cross-Level Listing	SDE 8101. Objectives, assessment and outcomes will be commensurate with the undergraduate level.
Prerequisite/Co-Requisite	Permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This undergraduate course is being created as a cross-level listing to an existing graduate level course (SDE 8101) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides additional course choices to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Graduate Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 15, 2023

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

ENGN 4101: Advanced Bioresource Engineering

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:
Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):

- substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
  - O'Reilly Higher Education (formerly known as Safari)
    - 1888 results for
      (bioresource OR biofuel OR biomaterial OR "biomass conversion"),
      filtered on the topics Engineering, Materials Engineering, Fuel Cells, Chemical Engineering, Civil Engineering, Biology, Innovation, Electrical Engineering, Mechanical Engineering, and Science
  - EBSCO
  - Elsevier
  - Wiley
  - Springer
  - Sage
  - ProQuest
  - Taylor & Francis
  - DesLibris
  - JSTOR
- CRC Handbook of Chemistry & Physics (maintained through subscription)
- licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
  - INSPEC
  - EI Compendex
  - AccessEngineering
    - over 17,000 results searching
      (bioresource OR biofuel OR biomaterials OR "biomass conversion")
  - IEEE/IET IEL Electronic Library (Xplore)
    - over 3200 results for
      (bioresource OR biofuel OR biomaterials OR "biomass conversion")
      published in the last 10 years
  - various engineering standards maintained through the MADCAD platform
- licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
  - EBSCO Discovery Service (OneSearch)
  - Academic Search Complete

        - over 70,000 peer-reviewed results searching
          engineer* AND (bioresource OR biofuel OR biomaterials OR “biomass conversion”)
          from within the last 10 years
    - Gale OneFile Academic
    - Sage Research Methods
    - Scopus
- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
    - Elsevier (ScienceDirect)
        - over 88,000 results searching
          (engineer OR engineers OR engineering) AND (bioresource OR biofuel OR biomaterials OR “biomass conversion”),
          filtered to the last 10 years and the Engineering, Materials Science, Chemical Engineering, Energy, and Agriculture and Biological Sciences subject fields.
    - Wiley
    - Springer
    - Sage
    - Association of Computing Machinery (ACM Digital Library)
        - over 200 results using keyword search
          engineer* AND (bioresource OR biofuel OR biomaterials OR “biomass conversion”)
          published in the last 10 years
    - Institute of Physics (IOP)
    - American Chemical Society (ACS Web Editions and SciFinder)
    - Royal Society of Chemistry
    - American Geosciences Institute (GeoRef and GeoScienceWorld)
    - American Mathematical Society (MathSciNet)
- Other resources:
    - Streaming Video collections including:
        - Academic Videos Online (Proquest)
        - Audio Cine Films
        - Criterion on Demand
        - JoVE
        - NFB Campus
    - OED Online
    - Business Source Complete (journal articles and index)
    - CAB Abstracts (index with full-text ebooks, proceedings)
    - Statistics Canada data through NESSTAR and CHASS
    - New York Times, as well as many more regional, national, and international newspapers and news services
    - Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP^3. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
    - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
    - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement?

While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan. 11, forms provided Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #33

Faculty/School: **Sustainable Design Engineering**

Department/Program(s): **MScSDE**

MOTION: **To approve SDE 8840 as a new graduate course and to cross-level list it with the existing undergraduate-level course, ENGN 4840.**

Course Number and Title	SDE 8840: Sustainable Technology Development and Commercialization
Description	This course engages students in technology development and commercialization. Teams of students work closely as startup companies to develop innovative and sustainable solutions to meet global challenges. Teams will be supported by instructors and industry mentors and will have access to dedicated incubator space, lab equipment and manufacturing facilities to complete their projects. Students further develop their entrepreneurial, professional and technical skills through completing the necessary steps to commercialize their new innovative technologies and products. The course will focus on learning and applying various aspects of validation, incubation and business strategy development including lean startup, design for commercialization, design for certification, manufacturing and distribution planning, investor relations, business growth planning and corporate sustainability. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program.
Cross-Level Listing	ENGN 4840; credit cannot be received for both courses
Prerequisite/Co-Requisite	Admission to the MSc SDE graduate program and permission of the instructor
Credit(s)	3
Notation	Three lecture hours per week

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: No

Rationale for New Course: This graduate course is being created as a cross-level listing to an existing undergraduate level course (ENGN 4840) to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: N/A

Impact on Students Currently Enrolled: Provides an additional elective choice to students

Resources Required: None.

In offering this course will UPEI require facilities or staff at other institutions: No

NEW COURSE PROPOSAL

Motion #33

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

NEW COURSE PROPOSAL — Motion #33

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

SDE 8840: Sustainable Technology Development and Commercialization

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:
Aside from various monographs included in the library's physical collection – including a copy of the Machinery's Handbook – the library has access to these resources (search results from select resources have been provided as examples):

- substantial ebook collections available through a range of license models, some of which require annual payments to continue access. The library has ebook access deals with the following publishers:
  - O'Reilly Higher Education (formerly known as Safari)
    - Over 8000 results searching
      sustainable technology development commercialization
      filtering on "Business", "Business Strategy", "Engineering", "Project & Product Management", "Product Management", "Project Management", "Innovation", "Product Design", "Electrical Engineering, "Materials Engineering", "Chemical Engineering", "Civil Engineering", "Mechanical Engineering", "Systems Engineering"
  - EBSCO
  - Elsevier
  - Wiley
  - Springer
  - Sage
  - ProQuest
  - Taylor & Francis
  - DesLibris
  - JSTOR
- CRC Handbook of Chemistry & Physics (maintained through subscription)
- licensed access to Engineering-specific packages that may contain a combination of publication types, such as books, journals, and conference proceedings, and may include a mix of full text and abstract-only indexing:
  - INSPEC
  - EI Compendex
  - AccessEngineering
  - IEEE/IET IEL Electronic Library (Xplore)
    - Over 13,000 results searching
      ((sustainab* development commercializ*) OR (startup OR new) business) AND tech*
      published in the last 10 years
  - various engineering standards maintained through the MADCAD platform
- licensed packages of widely multidisciplinary content that include substantial engineering-related materials:
  - EBSCO Discovery Service (OneSearch)
    - Over 7000 results for
      (((sustainab* development commercializ*) OR ((startup OR new)

business)) AND tech*) NOT financ* invest*
filtered to books available in the library collection (physically or digitally) published in the past 10 years classed as “Engineering” or “Business & Management”

- Academic Search Complete
  - over 22,000 peer-reviewed results searching
    ((sustainab* development commercializ* OR (startup OR new) business) AND (tech* OR engineer*)) NOT financ* invest*
    from within the last 10 years
- Gale OneFile Academic
- Sage Research Methods
- Scopus

- full-text of many engineering journals and content of relevance to the engineering programs provided through annual subscriptions to publisher-specific packages:
  - Elsevier (ScienceDirect)
    - over 220,000 results searching
      ((sustainable OR sustainability) development (commercialize OR commercialization) OR ((startup OR new) business)) AND ((tech OR technology OR technological) OR engineering)
      filtered to the last 10 years and the Engineering, Chemical Engineering, and Energy subject fields.
  - Wiley
  - Springer
  - Sage
  - Association of Computing Machinery (ACM Digital Library)
    - over 182,000 results searching
      ((sustainab* development commercializ*) OR ((startup OR new) business)) AND tech* AND engineer*
      published in the last 10 years
  - Institute of Physics (IOP)
  - American Chemical Society (ACS Web Editions and SciFinder)
  - Royal Society of Chemistry
  - American Geosciences Institute (GeoRef and GeoScienceWorld)
  - American Mathematical Society (MathSciNet)
- Other resources:
  - Streaming Video collections including:
    - Academic Videos Online (Proquest)
    - Audio Cine Films
    - Criterion on Demand
    - JoVE
    - NFB Campus
  - OED Online
  - Business Source Complete (journal articles and index)
    - Over 4000 full-text peer-reviewed results returned searching
      engineer* AND ((sustainab* development commercializ*) OR ((startup OR new) business)) AND tech* NOT financ* invest*
      published in the last 10 years

- Subject heading search using
  (New business enterprises [exploded] OR New business enterprises – Management OR Business incubators OR New product development) AND Sustainable development [exploded] AND (Technology [exploded] OR Engineering [exploded]
  returned over 10,000 full-text peer-reviewed results published in the last 10 years
  - Exploded here means also searching on the narrower terms listed under each of the subject headings listed, separated by the OR Boolean beside the parent heading.
- Canadian Business & Current Affairs Database
  - Over 1100 peer-reviewed results searching
    engineer* AND ((sustainab* development commercializ*) OR ((startup OR new) business)) AND tech* NOT (financ* invest*)
    published in the last 10 years
- CAB Abstracts (index with full-text ebooks, proceedings)
- Statistics Canada data through NESSTAR and CHASS
- New York Times, as well as many more regional, national, and international newspapers and news services
- Additionally, we organize and provide guidance on several tools that are open access to the public, such as MEDLINE and SCOAP[3]. We also collect extensively on PEI materials, which are accessed through the Special Collections services of the library and online on islandarchives.ca. Full list of resources is available at https://library.upei.ca/databases_all.

- Physical Space in Library (other than holdings, explain) - none
- Library Administrative/Research Support
  - *Engineering Liaison librarian: Mackenzie Johnson*

Summary of additional budget allocation required:

- One-time: ___n/a_____ For each of _n/a____ consecutive years
- Annual: ___n/a_____
  - Per-year percentage increase in annual: __n/a____

Does the budget allocation for library resources in this proposal meet the requirement? While there is no request for new financial resources and therefore no new budget allocation to make for library resources, our existing holdings can support this course so long as the library is able to maintain its subscriptions with its ongoing budget.

Date Received by Liaison/Collections Librarian	notice and draft list provided Jan/11, forms Jan 22
Name of Librarian to be Contacted for Questions	Mackenzie Johnson
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

CALENDAR & CURRICULUM CHANGE — Motion #34

Revision is for a: **Cross-listing Change**
Faculty/School/Department: **Sustainable Design Engineering**
Department/Program(s)/Academic Regulations: **BScSDE**
MOTION: To remove SDE-8230 as a cross-level listing to ENGN-3430

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
ENGN-3430 Technology Management & Entrepreneurship This course provides an overview on how to start and sustain a technology-oriented company. Topics discussed will include the role of technology in society, intellectual property, business feasibility studies, financial planning, sources of capital, business structure, marketing, operational and human resource management. The focus will be on students as engineers-entrepreneurs with involvement from real life entrepreneurs as motivators and facilitators. This course will use problem-based and experiential learning strategies to develop new ventures. Students who produce a well-developed business idea from this course may be considered for approval to use this as the basis for their final year engineering design project. Cross-listed with Computer Science 3840. Cross-level listed with SDE 8230 (Graduate-level project will be defined). PREREQUISITE: Engineering 3710 Three lecture hours per week.	**ENGN-3430 Technology Management & Entrepreneurship** This course provides an overview on how to start and sustain a technology-oriented company. Topics discussed will include the role of technology in society, intellectual property, business feasibility studies, financial planning, sources of capital, business structure, marketing, operational and human resource management. The focus will be on students as engineers-entrepreneurs with involvement from real life entrepreneurs as motivators and facilitators. This course will use problem-based and experiential learning strategies to develop new ventures. Students who produce a well-developed business idea from this course may be considered for approval to use this as the basis for their final year engineering design project. Cross-listed with Computer Science 3840 ~~Cross-level listed with SDE 8230 (Graduate-level project will be defined).~~ PREREQUISITE: Engineering 3710 Three lecture hours per week.

Rationale for Change: SDE-8230 was originally cross-level listed to a 4000-level course (ENGN 4230) which has since been changed to a 3000-level course (ENGN 3430). The cross-level listing between SDE 8230 and ENGN 3430 is now not appropriate and is also no longer consistent with Graduate Academic Regulation 14. Consequently, the cross-level listing between these courses is now being removed.

Effective Term: FALL 2023

Implications for Other Programs: With the removal of this cross-level listing, the existing SDE 8230 will no longer be required. It is proposed to be deleted under a separate motion.

Impact on Students Currently Enrolled: None

Authorization ***Date:***

Departmental Approval: FSDE Curriculum Committee	Jan 11 2023
Faculty/School Approval: FSDE Faculty	Jan 18 2023
Faculty Dean's Approval: Wayne Peters	Jan 18 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #35

Revision is for a: **Cross-listing Change**
Faculty/School/Department: **Sustainable Design Engineering**
Department/Program(s)/Academic Regulations: **BScSDE**
MOTION: To cross-level list SDE-8840 to ENGN-4840.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
ENGN-4840 Sustainable Technology Development and Commercialization This course engages students in technology development and commercialization. Teams of students work closely as startup companies to develop innovative and sustainable solutions to meet global challenges. Teams will be supported by instructors and industry mentors and will have access to dedicated incubator space, lab equipment and manufacturing facilities to complete their projects. Students further develop their entrepreneurial, professional and technical skills through completing the necessary steps to commercialize their new innovative technologies and products. The course will focus on learning and applying various aspects of validation, incubation and business strategy development including lean startup, design for commercialization, design for certification, manufacturing and distribution planning, investor relations, business growth planning and corporate sustainability. PREREQUISITE: Engineering 3220 Three lecture hours and three lab hours per week.	**ENGN-4840 Sustainable Technology Development and Commercialization** This course engages students in technology development and commercialization. Teams of students work closely as startup companies to develop innovative and sustainable solutions to meet global challenges. Teams will be supported by instructors and industry mentors and will have access to dedicated incubator space, lab equipment and manufacturing facilities to complete their projects. Students further develop their entrepreneurial, professional and technical skills through completing the necessary steps to commercialize their new innovative technologies and products. The course will focus on learning and applying various aspects of validation, incubation and business strategy development including lean startup, design for commercialization, design for certification, manufacturing and distribution planning, investor relations, business growth planning and corporate sustainability. Cross-level listed with SDE 8840. (Graduate level project will be defined). PREREQUISITE: Engineering 3220 Three lecture hours and three lab hours per week

Rationale for Change: This existing undergraduate course is being revised to include a cross-level listing to a new graduate course (SDE 8840), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 Implications for Other Programs: N/A

Impact on Students Currently Enrolled: To provide additional course choices to students

Authorization	*Date:*
Departmental Approval: FSDE Curriculum Committee	January 11, 2023
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #36

Revision is for a: **Cross-listing Change**
Faculty/School/Department: **Sustainable Design Engineering**
Department/Program(s)/Academic Regulations: **MScSDE**
MOTION: To cross-level list ENGN 4020 to SDE-8020

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8020 Quality Control and Project Management This course is an introduction to the most widely accepted project management practices in the workforce today. The student will learn the industrially accepted techniques associated with the management of time, cost, risk, and scope in order to achieve total project stakeholder satisfaction. The goal in this course is to prepare students with the most efficient and effective project management practices by applying these techniques to their graduate research work, and in so doing greatly increase their likelihood of managing successful projects during their careers. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8020 Quality Control and Project Management** This course is an introduction to the most widely accepted project management practices in the workforce today. The student will learn the industrially accepted techniques associated with the management of time, cost, risk, and scope in order to achieve total project stakeholder satisfaction. The goal in this course is to prepare students with the most efficient and effective project management practices by applying these techniques to their graduate research work, and in so doing greatly increase their likelihood of managing successful projects during their careers. Graduate-level project will be required as defined in consultation with the instructor Cross-level listed with ENGN-4020; credit cannot be received for both courses PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4020), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	*Date:*
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion # 37

Revision is for a: **Cross-listing Change**
Faculty/School/Department: **Sustainable Design Engineering**
Department/Program(s)/Academic Regulations: **MScSDE**
MOTION: To cross-level list ENGN 4021 to SDE-8021

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE 8021 Contemporary Topics in Engineering Management This graduate-level course is an introduction to the most widely accepted engineering management practices in the workforce today. Through lectures, case studies, guest speakers, and facilitated discussion, students will develop managerial knowledge and skills and be exposed to a spectrum of corporate activities in the engineering environment. Topics presented in this course include strategic management of research and development, organizational management, knowledge, risk and IP management, new product development, globalization, ethics, project management in a technology-based organization. This course will focus on "management for future engineering leaders" and examine national guidelines, practice engineering team dynamics, apply quantitative quality and supply chain concepts, and present financial/accounting basics for engineers. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE 8021 Contemporary Topics in Engineering Management** This graduate-level course is an introduction to the most widely accepted engineering management practices in the workforce today. Through lectures, case studies, guest speakers, and facilitated discussion, students will develop managerial knowledge and skills and be exposed to a spectrum of corporate activities in the engineering environment. Topics presented in this course include strategic management of research and development, organizational management, knowledge, risk and IP management, new product development, globalization, ethics, project management in a technology-based organization. This course will focus on "management for future engineering leaders" and examine national guidelines, practice engineering team dynamics, apply quantitative quality and supply chain concepts, and present financial/accounting basics for engineers. Graduate-level project will be required as defined in consultation with the instructor Cross-level listed with ENGN-4021; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4021), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCarville	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #48

Revision is for a: **Cross-listing Change**
Faculty/School/Department: **Sustainable Design Engineering**
Department/Program(s)/Academic Regulations: **MScSDE**
MOTION: To cross-level list ENGN 4030 to SDE-8030

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8030 Contemporary Topics in Sustainable Design Engineering In this course students will be exposed to and examine the concepts underlying sustainable design engineering as they pertain to engineering practice and in particular engineering research and the development of new technologies. Sustainable design engineering can be defined as an engineering design process which considers not only the key performance indicators and functional characteristics of the system being developed but also the environmental, social and economic context and impacts of the system. Recent advances in sustainability research have focused on the complex interactions between these areas, evolving from "green engineering" to a full consideration of sustainability. In order to develop sustainable solutions, engineers and researchers must be able to critically evaluate their work in this context. To this end, students will examine case studies and relevant readings on such topics as sustainability indicators, techno-economic and life cycle assessment, stakeholder engagement, real time technology assessment, engineering justice, and design for sustainability. While approaches for addressing the specific areas of environmental, social and economic sustainability will be covered, the focus of the course will be on the interactions between these areas. A key outcome of this course will be a paper critically examining the student's research topic from the perspective of sustainable design engineering. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8030 Contemporary Topics in Sustainable Design Engineering** In this course students will be exposed to and examine the concepts underlying sustainable design engineering as they pertain to engineering practice and in particular engineering research and the development of new technologies. Sustainable design engineering can be defined as an engineering design process which considers not only the key performance indicators and functional characteristics of the system being developed but also the environmental, social and economic context and impacts of the system. Recent advances in sustainability research have focused on the complex interactions between these areas, evolving from "green engineering" to a full consideration of sustainability. In order to develop sustainable solutions, engineers and researchers must be able to critically evaluate their work in this context. To this end, students will examine case studies and relevant readings on such topics as sustainability indicators, techno-economic and life cycle assessment, stakeholder engagement, real time technology assessment, engineering justice, and design for sustainability. While approaches for addressing the specific areas of environmental, social and economic sustainability will be covered, the focus of the course will be on the interactions between these areas. A key outcome of this course will be a paper critically examining the student's research topic from the perspective of sustainable design engineering. Graduate-level project will be required as defined in consultation with the instructor.. Cross-level listed with ENGN-4030; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate

CALENDAR & CURRICULUM CHANGE — Motion #48

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
	program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4030), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #39

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4031 to SDE-8031

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8031 User Centred Engineering Design User-centred design offers a powerful and systematic approach to understanding users and their needs and delivering effective design solutions in many domains including engineering, technology and health sciences. This course will introduce students to a variety of principles, practices and research methods for designing, developing and evaluating products, systems and solutions based on the users' needs, and context. Students will learn human factors, ergonomics, cognitive and perceptual psychology principles for designing products, information displays and complex systems. Students will be exposed to various subjective and objective metrics and methods for evaluations and usability studies. Students will also be introduced to apply user-centred design for developing sustainable products and systems. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8031 User Centred Engineering Design** User-centred design offers a powerful and systematic approach to understanding users and their needs and delivering effective design solutions in many domains including engineering, technology and health sciences. This course will introduce students to a variety of principles, practices and research methods for designing, developing and evaluating products, systems and solutions based on the users' needs, and context. Students will learn human factors, ergonomics, cognitive and perceptual psychology principles for designing products, information displays and complex systems. Students will be exposed to various subjective and objective metrics and methods for evaluations and usability studies. Students will also be introduced to apply user-centred design for developing sustainable products and systems. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4031; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4031), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #40

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4040 to SDE-8040

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8040 Design of Experiments This course focuses on the design, implementation, and analysis of engineering, scientific, and computer-based experiments. The course will examine the proper and scientific approach to experimentation, modeling, simulation, and analysis of data. Various designs are discussed and their respective advantages and disadvantages are noted. Factorial designs and sensitivity analysis will be studied in detail because of its relevance to various industries. Use of software for designing and analyzing experiments will also be used. For experiments that involved mainly physical quantities and natural phenomena, techniques of dimensional analysis will also be introduced. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8040 Design of Experiments** This course focuses on the design, implementation, and analysis of engineering, scientific, and computer-based experiments. The course will examine the proper and scientific approach to experimentation, modeling, simulation, and analysis of data. Various designs are discussed and their respective advantages and disadvantages are noted. Factorial designs and sensitivity analysis will be studied in detail because of its relevance to various industries. Use of software for designing and analyzing experiments will also be used. For experiments that involved mainly physical quantities and natural phenomena, techniques of dimensional analysis will also be introduced. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4040; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4040), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #41

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4050 to SDE-8050

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8050 Engineering Research Methods This course will introduce students to the elements of a research project and will focus on quantitative research methodologies. Students will practice the planning, implementation, analysis, and documentation for a research project of their own design. Topics will include: performing a literature review, developing a hypothesis, creating a research plan, collecting data, analyzing the results, and compiling a research report. Students will use tools for quantitative data analysis and will explore reliability, validation, and verification concepts. Students will report findings in a technical presentation. The course encourages students to develop their research question and perform a sample experiment to apply lessons learned to their main research topic. Intellectual property rights and engineering ethics topics will be explored. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8050 Engineering Research Methods** This course will introduce students to the elements of a research project and will focus on quantitative research methodologies. Students will practice the planning, implementation, analysis, and documentation for a research project of their own design. Topics will include: performing a literature review, developing a hypothesis, creating a research plan, collecting data, analyzing the results, and compiling a research report. Students will use tools for quantitative data analysis and will explore reliability, validation, and verification concepts. Students will report findings in a technical presentation. The course encourages students to develop their research question and perform a sample experiment to apply lessons learned to their main research topic. Intellectual property rights and engineering ethics topics will be explored. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4050; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4050), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	*Date:*
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #42

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4060 to SDE-8060

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8060 Design of Energy Systems This course focuses on the understanding of the physical processes underlying the energy conversion process from wind and solar energy. Students will have an advanced knowledge of aerodynamics and structural dynamics, and they will understand the main strategies used for controlling these machines over their complete operating range. A specific goal of the course is to provide students with a multidisciplinary vision on the physics of energy systems, and an understanding of the methods used for their modeling and simulation. A particular emphasis will be placed on design, and on the effects of design choices on the cost of energy. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8060 Design of Energy Systems** This course focuses on the understanding of the physical processes underlying the energy conversion process from wind and solar energy. Students will have an advanced knowledge of aerodynamics and structural dynamics, and they will understand the main strategies used for controlling these machines over their complete operating range. A specific goal of the course is to provide students with a multidisciplinary vision on the physics of energy systems, and an understanding of the methods used for their modeling and simulation. A particular emphasis will be placed on design, and on the effects of design choices on the cost of energy. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4060; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4060), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	*Date:*
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #43

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4061 to SDE-8061

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8061 Optimization Energy Infrastructure The course aims to provide the knowledge about the application of various optimization methods in designing energy infrastructure. The course starts with the introduction to various optimization algorithms. Thereafter, the integration of energy modeling and simulation with optimization algorithms will be demonstrated. This course will also cover the optimization of distributed energy systems using single and multi-objective optimization methods. Several minor projects will be introduced to formulate the energy system optimization problem deciding design variables, objectives, and constraints. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8061 Optimization Energy Infrastructure** The course aims to provide the knowledge about the application of various optimization methods in designing energy infrastructure. The course starts with the introduction to various optimization algorithms. Thereafter, the integration of energy modeling and simulation with optimization algorithms will be demonstrated. This course will also cover the optimization of distributed energy systems using single and multi-objective optimization methods. Several minor projects will be introduced to formulate the energy system optimization problem deciding design variables, objectives, and constraints. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4061; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4061), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #44

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4062 to SDE-8062

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8062 Solar Buildings/Neighbourhood The course is aimed to discuss the design considerations in designing solar buildings and neighborhoods. The course will start with the historical background of solar neighborhoods in modern and ancient history. Thereafter, passive solar design considerations in various small and large scale buildings will be discussed. Principles of solar design such as building site setting, building shape, building envelopes, active and passive based heating and cooling techniques will be introduced. The active electrical and thermal energy generation and storage strategies will be discussed. Energy modeling and simulation tools used for the assessment of solar access of various building will be demonstrated. Various case studies related to solar buildings and neighborhood will be taken for assignments. For the term project, incorporation of solar strategies for modifying existing Canadian buildings and neighborhoods will be assigned to groups of students. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8062 Solar Buildings/Neighbourhood** The course is aimed to discuss the design considerations in designing solar buildings and neighborhoods. The course will start with the historical background of solar neighborhoods in modern and ancient history. Thereafter, passive solar design considerations in various small and large scale buildings will be discussed. Principles of solar design such as building site setting, building shape, building envelopes, active and passive based heating and cooling techniques will be introduced. The active electrical and thermal energy generation and storage strategies will be discussed. Energy modeling and simulation tools used for the assessment of solar access of various building will be demonstrated. Various case studies related to solar buildings and neighborhood will be taken for assignments. For the term project, incorporation of solar strategies for modifying existing Canadian buildings and neighborhoods will be assigned to groups of students. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4062; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4062), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Provides additional course choices to students

CALENDAR & CURRICULUM CHANGE — Motion #48

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #45

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4063 to SDE-8063

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8063 Contemporary Topics in Sustainable Energy This broadly applicable course discusses global energy usage and exposes students to current trends in local and global sustainable energy initiatives (i.e., energy generation and storage) and applications. Present and future global energy consumption and related CO2 emissions are considered and discussed. Students will be exposed to and analyze case studies as well as develop and design their own globally relevant solution concepts. Students will ultimately gain an enhanced, quantitative appreciation for the challenges and opportunities related to global energy system decarbonization. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8063 Contemporary Topics in Sustainable Energy** This broadly applicable course discusses global energy usage and exposes students to current trends in local and global sustainable energy initiatives (i.e., energy generation and storage) and applications. Present and future global energy consumption and related CO2 emissions are considered and discussed. Students will be exposed to and analyze case studies as well as develop and design their own globally relevant solution concepts. Students will ultimately gain an enhanced, quantitative appreciation for the challenges and opportunities related to global energy system decarbonization. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4063; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4063), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #46

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4070 to SDE-8070

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8070 Novel Engineered Materials This course is a graduate-level examination of the properties and processing of novel, engineered materials for sustainable applications. Fundamental concepts of solid-state diffusion, phase transformations, amorphous-to-crystalline kinetics, rapid solidification - for nuclear energy, more electric generation, renewable energy systems, additive manufacturing, modeling and simulation of the nanoscale will be discussed. As well, the relationships between the performance of electrical, optical, and magnetic devices and the microstructural and defect characteristics of the materials from which they are constructed will be explored. Focusing on functional materials for emerging technologies and emphasizing a device-design approach, applications will center around current research in the Faculty of Sustainable Design Engineering. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8070 Novel Engineered Materials** This course is a graduate-level examination of the properties and processing of novel, engineered materials for sustainable applications. Fundamental concepts of solid-state diffusion, phase transformations, amorphous-to-crystalline kinetics, rapid solidification - for nuclear energy, more electric generation, renewable energy systems, additive manufacturing, modeling and simulation of the nanoscale will be discussed. As well, the relationships between the performance of electrical, optical, and magnetic devices and the microstructural and defect characteristics of the materials from which they are constructed will be explored. Focusing on functional materials for emerging technologies and emphasizing a device-design approach, applications will center around current research in the Faculty of Sustainable Design Engineering. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4070; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4070), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #47

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4080 to SDE-8080

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8080 Industrial Machine Vision This course focuses on computer vision with an emphasis on techniques for automated inspection, object recognition, mechanical metrology, and robotics. Image processing courses typically focus for image enhancement, restoration, filtering, smoothing, etc. These topics will be covered to a certain degree but the main focus will be on image segmentation, feature extraction, morphological operators, recognition and photogrammetry. Issues related to the efficient software implementation of these techniques for real-time applications will also be addressed. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8080 Industrial Machine Vision** This course focuses on computer vision with an emphasis on techniques for automated inspection, object recognition, mechanical metrology, and robotics. Image processing courses typically focus for image enhancement, restoration, filtering, smoothing, etc. These topics will be covered to a certain degree but the main focus will be on image segmentation, feature extraction, morphological operators, recognition and photogrammetry. Issues related to the efficient software implementation of these techniques for real-time applications will also be addressed. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4080; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4080), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #48

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4081 to SDE-8081

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8081 Modern Mechatronic Systems This course emphasizes how the abstract concepts of control theory and advanced design tools are used pragmatically in engineering practice in the mechatronics field. This course explores current topics of modern mechatronics, from the application of complex systems through dimensionality reduction, machine learning, and dynamical systems modelling to innovative methods and algorithms such as augmented reality, medical image analysis, and automated mapping of environments. Above all, this course is designed to entice students to think, ask questions of existing theory, and understand the essence of mechatronics systems. To this end, students will develop and implement practical, hands-on-with-hardware applications of the control system analysis and design principles that are the subject matter of their research. The findings and results of this project will be presented in the format of a manuscript that incorporates the research methodology, their final product, and critical thinking over the mechatronic topic. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8081 Modern Mechatronic Systems** This course emphasizes how the abstract concepts of control theory and advanced design tools are used pragmatically in engineering practice in the mechatronics field. This course explores current topics of modern mechatronics, from the application of complex systems through dimensionality reduction, machine learning, and dynamical systems modelling to innovative methods and algorithms such as augmented reality, medical image analysis, and automated mapping of environments. Above all, this course is designed to entice students to think, ask questions of existing theory, and understand the essence of mechatronics systems. To this end, students will develop and implement practical, hands-on-with-hardware applications of the control system analysis and design principles that are the subject matter of their research. The findings and results of this project will be presented in the format of a manuscript that incorporates the research methodology, their final product, and critical thinking over the mechatronic topic. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4081; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4081), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Provides additional course choices to students

CALENDAR & CURRICULUM CHANGE — Motion #48

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #49

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4100 to SDE-8100

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8100 Biofuel and Biomass Technology This course focuses on advanced concepts in understanding biofuels and bioenergy systems, renewable feedstocks, their production, availability and attributes for biofuel/bioenergy production, types of biomass derived fuels and energy, thermochemical conversion of biomass to heat, power and fuel, biochemical conversion of biomass to fuel environmental aspects of biofuel production, economics and life-cycle analysis of biofuel, and value adding of biofuel residues. Students will analyze, as well as prepare, case studies on biofuel production. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8100 Biofuel and Biomass Technology** This course focuses on advanced concepts in understanding biofuels and bioenergy systems, renewable feedstocks, their production, availability and attributes for biofuel/bioenergy production, types of biomass derived fuels and energy, thermochemical conversion of biomass to heat, power and fuel, biochemical conversion of biomass to fuel environmental aspects of biofuel production, economics and life-cycle analysis of biofuel, and value adding of biofuel residues. Students will analyze, as well as prepare, case studies on biofuel production. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4100; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4100), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #50

Revision is for a: **Cross-listing Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To cross-level list ENGN 4101 to SDE-8101

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8101 Advanced Bioresource Engineering The quest for food security, renewable energy, climate change and demand for sustainable fuels has increased focus on biomass conversion and technological interventions to cope with these challenges. This course covers advanced topics in bioresource engineering to acquire an understanding of sustainability challenges in bioresource sector and propose optimal climate smart solutions by implementing technologies and processes. The course is delivered in three complementary modules: i) deep learning and artificial intelligence for sustainable food production, ii) biofuels and biomaterials, and iii) the design of biomass conversion reactors. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8101 Advanced Bioresource Engineering** The quest for food security, renewable energy, climate change and demand for sustainable fuels has increased focus on biomass conversion and technological interventions to cope with these challenges. This course covers advanced topics in bioresource engineering to acquire an understanding of sustainability challenges in bioresource sector and propose optimal climate smart solutions by implementing technologies and processes. The course is delivered in three complementary modules: i) deep learning and artificial intelligence for sustainable food production, ii) biofuels and biomaterials, and iii) the design of biomass conversion reactors. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4101; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3

Rationale for Change: This existing graduate course is being revised to include a cross-level listing to a new undergraduate level course (ENGN 4101), which was created under a previous motion, to be able to deliver both an undergraduate and graduate level version of the course in accordance with Graduate Academic Regulation 14.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Provides additional course choices to students

Authorization	*Date:*
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #51

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8310

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8310 Advanced Fabrication Techniques This course concentrates on manufacturing knowledge with a focus on advanced fabrication techniques (AFT) and Computer Integrated Manufacturing (CIM). Students will expand their knowledge of traditional processes including CAD/CAM, forming, welding, milling, etc. leading into innovative advanced fabrication techniques in additive and precision manufacturing, next generation electronics, robotics and smart automation (CIM), and sustainable and green manufacturing modeling and simulation in the manufacturing process developed through lectures and labs. Integration of CIM into supply chain design and management is emphasized based on synergistic application of mechatronics approach and philosophy. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4310; credit cannot be received for both courses PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8310 Advanced Fabrication Techniques** This course concentrates on manufacturing knowledge with a focus on advanced fabrication techniques (AFT) and Computer Integrated Manufacturing (CIM). Students will expand their knowledge of traditional processes including CAD/CAM, forming, welding, milling, etc. leading into innovative advanced fabrication techniques in additive and precision manufacturing, next generation electronics, robotics and smart automation (CIM), and sustainable and green manufacturing modeling and simulation in the manufacturing process developed through lectures and labs. Integration of CIM into supply chain design and management is emphasized based on synergistic application of mechatronics approach and philosophy. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4310; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #52

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8320

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8320 Control System Design This course will provide students with an overview of system modelling and control methodologies of single/multiple input/output systems, e.g., energy transport control, reactor control, heat exchanger control, power production, and mechatronic systems. Students will learn classical control methods e.g.,feedforward, feedbacks, cascade, decoupling to modern control methods, LQR, predictive control,optimal and robust control. Students will be equipped with knowledge and skills for analyzing stability, controllability and observability of state-space representation modelled systems. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4320; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8320 Control System Design** This course will provide students with an overview of system modelling and control methodologies of single/multiple input/output systems, e.g., energy transport control, reactor control, heat exchanger control, power production, and mechatronic systems. Students will learn classical control methods e.g.,feedforward, feedbacks, cascade, decoupling to modern control methods, LQR, predictive control,optimal and robust control. Students will be equipped with knowledge and skills for analyzing stability, controllability and observability of state-space representation modelled systems. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4320; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #53

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8330

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8330 Innovations in Biomedical Engineering This course provides an overview of the subdisciplines that are included in field of biomedical engineering. Through a hands-on approach, the course introduces topics including biotransport, bioelectrical phenomena, bioinstrumentation, biomechanics, diagnostic devices, medical imaging, rehabilitation, biomaterials, tissue engineering, biosensors, lab-on-a-chip and micro- and nano-technology. The course also introduces the basics of medical device regulations and ethics of medical instrumentation. Students will gain an appreciation for the collaborative, interdisciplinary nature of engineering in medicine and its potential impact on society. Cross-level listed with ENGN 4330; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8330 Innovations in Biomedical Engineering** This course provides an overview of the subdisciplines that are included in field of biomedical engineering. Through a hands-on approach, the course introduces topics including biotransport, bioelectrical phenomena, bioinstrumentation, biomechanics, diagnostic devices, medical imaging, rehabilitation, biomaterials, tissue engineering, biosensors, lab-on-a-chip and micro- and nano-technology. The course also introduces the basics of medical device regulations and ethics of medical instrumentation. Students will gain an appreciation for the collaborative, interdisciplinary nature of engineering in medicine and its potential impact on society. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4330; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #54

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8350

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8350 Advanced Robotic Dynamic & Control This course advances the fundamentals of robotics through exposure to in-depth knowledge and understanding of kinematics, dynamics, control and trajectory with applications to autonomous vehicles, automated manufacturing and processing and mobile robotics. Areas of interest include: position transformation and control, rigid body motion, kinematic control, compliance and force control. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4350; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8350 Advanced Robotic Dynamic & Control** This course advances the fundamentals of robotics through exposure to in-depth knowledge and understanding of kinematics, dynamics, control and trajectory with applications to autonomous vehicles, automated manufacturing and processing and mobile robotics. Areas of interest include: position transformation and control, rigid body motion, kinematic control, compliance and force control. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4350; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #55

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8370

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8370 Fluid Power Control This course covers the analysis and design of basic hydraulic and pneumatic circuits and systems. Topics include a review of the fundamentals of fluid mechanics including flow through valves, fittings, and pipe; classification of hydrostatic pumps and motors; control valves; hydraulic accumulators; sizing of practical hydraulic circuits; thermal and energy considerations; electrohydraulic control and modeling of hydraulic control systems. The latter part of the course focuses on pneumatic systems including pneumatic cylinders and motors, control valves, and compressor technology. The application of Programmable Logic Controls (PLCs) to industrial automation and the sequential control of pneumatic actuators is also addressed. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4370; credit cannot be received for both courses PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8370 Fluid Power Control** This course covers the analysis and design of basic hydraulic and pneumatic circuits and systems. Topics include a review of the fundamentals of fluid mechanics including flow through valves, fittings, and pipe; classification of hydrostatic pumps and motors; control valves; hydraulic accumulators; sizing of practical hydraulic circuits; thermal and energy considerations; electrohydraulic control and modeling of hydraulic control systems. The latter part of the course focuses on pneumatic systems including pneumatic cylinders and motors, control valves, and compressor technology. The application of Programmable Logic Controls (PLCs) to industrial automation and the sequential control of pneumatic actuators is also addressed. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4370; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	N/A

CALENDAR & CURRICULUM CHANGE — Motion #56

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8410

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8410 Macro Energy Systems This course covers methods for analyzing energy supply, conversion processes, and end-use at the system level. Aspects considered include the dynamics of energy supply and demand, efficiencies of energy conversion, characteristics of energy currencies, and energy needs across different sectors. Students will characterize methods of delivering energy services such as heat, light, industrial power and transportation. Energy analysis will be introduced and used to build a quantitative framework for integrating techno-economic analysis of energy system components, with emphasis on elements such as fossil fuels and nuclear power. Students will gain an enhanced, quantitative appreciation for the sustainability, emissions, cost and energy intensity aspects of energy services delivery. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4410; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8410 Macro Energy Systems** This course covers methods for analyzing energy supply, conversion processes, and end-use at the system level. Aspects considered include the dynamics of energy supply and demand, efficiencies of energy conversion, characteristics of energy currencies, and energy needs across different sectors. Students will characterize methods of delivering energy services such as heat, light, industrial power and transportation. Energy analysis will be introduced and used to build a quantitative framework for integrating techno-economic analysis of energy system components, with emphasis on elements such as fossil fuels and nuclear power. Students will gain an enhanced, quantitative appreciation for the sustainability, emissions, cost and energy intensity aspects of energy services delivery. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4410; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

CALENDAR & CURRICULUM CHANGE — Motion #57

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8440

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8440 Advanced Energy Storage This course considers advanced technical analysis of energy storage systems. A comprehensive overview of all industrially relevant energy storage systems is reviewed and emphasis is placed on promising energy storage technologies of the future. Chemical, thermal and kinetic storage technologies will be discussed in detail. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4440; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8440 Advanced Energy Storage** This course considers advanced technical analysis of energy storage systems. A comprehensive overview of all industrially relevant energy storage systems is reviewed and emphasis is placed on promising energy storage technologies of the future. Chemical, thermal and kinetic storage technologies will be discussed in detail. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4440; credit cannot be received for both courses PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #58

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8450

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8450 Fluid Load on Energy Structures This course is an introduction to the loads applied on structures from wind, waves, and currents, and their heightened relevance to structures designed for energy conversion. Phenomena to be discussed include lift and drag, boundary layers, vortex-induced vibrations, wakes, hydrostatic loading, and water waves. A selection of engineering methods will be introduced and brought to bear on these topics, such as potential flow theory, blade-element theory, Airy wave theory and Morison's equation. Dimensional analysis will be introduced to characterize flow problems. Design implications will be discussed for a selection of relevant energy conversion structures such as aircraft wings, wind turbines, breakwaters, marine vessels, and offshore energy platforms. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4450; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8450 Fluid Load on Energy Structures** This course is an introduction to the loads applied on structures from wind, waves, and currents, and their heightened relevance to structures designed for energy conversion. Phenomena to be discussed include lift and drag, boundary layers, vortex-induced vibrations, wakes, hydrostatic loading, and water waves. A selection of engineering methods will be introduced and brought to bear on these topics, such as potential flow theory, blade-element theory, Airy wave theory and Morison's equation. Dimensional analysis will be introduced to characterize flow problems. Design implications will be discussed for a selection of relevant energy conversion structures such as aircraft wings, wind turbines, breakwaters, marine vessels, and offshore energy platforms. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4450; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #59

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department**:** **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8470

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8470 Micro Grids This course focuses on the concept, operation and optimization of renewable-energy-based micro-grids. Concepts introduced and considered include renewable energy resources, integration technologies, grid-connected operation, islanded grid operation, energy storage integration and the optimal dimensioning and mixing of multiple energy sources where some are stochastic in nature and some are dispatchable. Existing and future energy storage technologies will be also be discussed. This course is based on energy flow analysis and makes extensive use of software simulation tools. Students will develop a framework for performing techno-economic assessments of micro-grid architectures and designs. A strong background in electrical power systems is not necessarily required. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4470; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8470 Micro Grids** This course focuses on the concept, operation and optimization of renewable-energy-based micro-grids. Concepts introduced and considered include renewable energy resources, integration technologies, grid-connected operation, islanded grid operation, energy storage integration and the optimal dimensioning and mixing of multiple energy sources where some are stochastic in nature and some are dispatchable. Existing and future energy storage technologies will be also be discussed. This course is based on energy flow analysis and makes extensive use of software simulation tools. Students will develop a framework for performing techno-economic assessments of micro-grid architectures and designs. A strong background in electrical power systems is not necessarily required. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4470; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #60

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8510

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8510 Geoinformatics in Bioresource This course covers the theory and practice of geoinformatics and their applications to problems in bioresources using digital mapping and spatial analysis. Hands on laboratories will provide students with an experience to collect georeferenced data using differential global positioning system, followed by mapping and analysis in geographical information system. Topics include datums, map projections and transformations, vector and raster data, geo-spatial analysis, geo-statistics and interpolation techniques. This course will also cover the fundamentals of remote sensing, data collection with sensors, and spatial and temporal aspects of the bio-resources attributes. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4510; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8510 Geoinformatics in Bioresource** This course covers the theory and practice of geoinformatics and their applications to problems in bioresources using digital mapping and spatial analysis. Hands on laboratories will provide students with an experience to collect georeferenced data using differential global positioning system, followed by mapping and analysis in geographical information system. Topics include datums, map projections and transformations, vector and raster data, geo-spatial analysis, geo-statistics and interpolation techniques. This course will also cover the fundamentals of remote sensing, data collection with sensors, and spatial and temporal aspects of the bio-resources attributes. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4510; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #61

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8530

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8530 Fundamentals Agri Machinery This course highlights the fundamentals of mechanized agriculture machinery from soil preparation, planting, and crop management to mechanical harvesting. The machines and their unit operation are analyzed with respect functions, work rates, material flow and power usage. The machine performance relating to work quality and environmental effects will also be evaluated. The labs will emphasize on safety, basic maintenance, adjustment, calibrations of equipment and performance testing. This course also covers the variable rate applicators for site-specific application of inputs, auto guidance system, data acquisition and management for intelligent decision making for machines, and precision agriculture technologies. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4530; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8530 Fundamentals Agri Machinery** This course highlights the fundamentals of mechanized agriculture machinery from soil preparation, planting, and crop management to mechanical harvesting. The machines and their unit operation are analyzed with respect functions, work rates, material flow and power usage. The machine performance relating to work quality and environmental effects will also be evaluated. The labs will emphasize on safety, basic maintenance, adjustment, calibrations of equipment and performance testing. This course also covers the variable rate applicators for site-specific application of inputs, auto guidance system, data acquisition and management for intelligent decision making for machines, and precision agriculture technologies. Graduate-level project will be required as defined in consultation with the instructor. <u>This course is not eligible for the PhD-SDE program.</u> Cross-level listed with ENGN 4530; credit cannot be received for both courses. PREREQUISITES: Admission to the <u>MSc SDE program</u> ~~graduate program in School of Sustainable Design Engineering~~ <u>and permission of the instructor</u> HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023 Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle.	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #62

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8550

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8550 Chemical/Biological Processes Processes used in the chemical and biological industries, which emphasize underlying physical, chemical, and biological principles, will be introduced. By carrying out the mass and energy balances, students will conduct design and economic assessment of major chemical and biological engineering processes. Introduction to modelling of chemical processes will be covered in this course. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4550; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8550 Chemical/Biological Processes** Processes used in the chemical and biological industries, which emphasize underlying physical, chemical, and biological principles, will be introduced. By carrying out the mass and energy balances, students will conduct design and economic assessment of major chemical and biological engineering processes. Introduction to modelling of chemical processes will be covered in this course. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4550; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #63

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **MScSDE**

MOTION: To add "permission of the instructor" as a pre-requisite for SDE 8830

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
SDE-8830 Biomedical Signal Processing This course is an introduction to the basics of viewing, processing, and analyzing of biosignals, or signals originating from living beings. Biosignals may be characterized as bioelectrical signals which can be composed of both electrical and non-electrical parts. Topics include both linear and nonlinear systems, signal conditioning or filtering, improving signal quality (signal-to-noise ratio) through averaging techniques, and signal representations in both the time and frequency domains. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4830; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3	**SDE-8830 Biomedical Signal Processing** This course is an introduction to the basics of viewing, processing, and analyzing of biosignals, or signals originating from living beings. Biosignals may be characterized as bioelectrical signals which can be composed of both electrical and non-electrical parts. Topics include both linear and nonlinear systems, signal conditioning or filtering, improving signal quality (signal-to-noise ratio) through averaging techniques, and signal representations in both the time and frequency domains. Graduate-level project will be required as defined in consultation with the instructor. This course is not eligible for the PhD-SDE program. Cross-level listed with ENGN 4830; credit cannot be received for both courses. PREREQUISITES: Admission to the MSc SDE program ~~graduate program in School of Sustainable Design Engineering~~ and permission of the instructor HOURS OF CREDIT: 3

Rationale for Change: The prerequisite is being revised to allow the instructor to ensure that the student has the appropriate prerequisite knowledge, and to confirm that this course is not eligible for the PhD-SDE program. It is only eligible for the MSc-SDE program.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 202

CALENDAR & CURRICULUM CHANGE — Motion #64

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Sustainable Design Engineering**

Department/Program(s)/Academic Regulations: **PhDSDE**

MOTION: That the Academic Calendar entry for the Doctor of Philosophy in Sustainable Design Engineering be revised to identify which graduate-level courses are eligible for the PhD program.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Faculty of Sustainable Design Engineering PhD Program	Faculty of Sustainable Design Engineering PhD Program
Overview: The UPEI Doctor of Philosophy in Sustainable Design Engineering (PhD-SDE) program aims to train graduates who have in-depth expertise in applying principles of sustainable design engineering to interdisciplinary and transdisciplinary research challenges. The PhD-SDE degree program will be research-intensive and require the students to complete their thesis work under the supervision of a Faculty of Sustainable Design Engineering (FSDE) faculty member.	Overview: The UPEI Doctor of Philosophy in Sustainable Design Engineering (PhD-SDE) program aims to train graduates who have in-depth expertise in applying principles of sustainable design engineering to interdisciplinary and transdisciplinary research challenges. The PhD-SDE degree program will be research-intensive and require the students to complete their thesis work under the supervision of a Faculty of Sustainable Design Engineering (FSDE) faculty member.
Course Requirements: Students will be required to take at least four (4) graduate-level courses (equivalent to at least 12 credits). At least two of the graduate-level courses must be from graduate-level courses offered in FSDE. All students must complete the SDE 8030 (Contemporary Topics in Sustainable Design Engineering) course unless they receive approval from their committee to take an alternate FSDE graduate-level course. The courses that students who transfer from MSc-SDE program at UPEI have completed during their MSc degree will count towards their PhD degree. Each student is expected to complete these courses within the first 24 months of the degree, before or in the concurrent semester of their PhD Comprehensive Exam.	Course Requirements: Students will be required to take at least four (4) graduate-level courses (equivalent to at least 12 credits) in addition to SDE 8010 (PhD Thesis) and SDE 8900 (Seminar). Normally these courses should be selected from the PhD-SDE Graduate level Courses listed below. Upon approval of the student's supervisory committee, up to two graduate-level courses may be taken from outside the FSDE. ~~At least two of the graduate-level courses must be from graduate-level courses offered in FSDE~~. All students must complete the SDE 8030 (Contemporary Topics in Sustainable Design Engineering) course unless they receive approval from their supervisory committee to take an alternate FSDE graduate-level course. In the case of ~~The courses that~~ students who transfer from the MSc-SDE program at UPEI, any PhD-SDE Graduate-level Courses ~~have~~ completed during their MSc degree will count towards their PhD degree. Each student is expected to complete these courses within the first 24 months of the degree, before or in the concurrent semester of their PhD Comprehensive Exam.
Thesis and Seminar: PhD-SDE students are required to register for SDE 8010 (PhD Thesis) throughout their degree program. PhD-SDE students are also required to register in the SDE 8900 (Seminar) course in the first four years of their degree program. SDE 8900 is a Pass/Fail course. Seminars are held on a weekly basis, and each	Thesis and Seminar: PhD-SDE students are required to register for SDE 8010 (PhD Thesis) throughout their degree program. PhD-SDE students are also required to register in the SDE 8900 (Seminar) course in the first four years of their degree program. SDE 8900 is a Pass/Fail

CALENDAR & CURRICULUM CHANGE — Motion #64

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
student must present their research work at least once a year and attend all the seminar sessions to receive Pass the SDE 8901 course, unless prior arrangement is made with the Supervisor and the Graduate Studies Coordinator. SDE 8010 will be evaluated as satisfactory/unsatisfactory, and the requirement for receiving satisfactory in the SDE 8010 is explained under the Doctoral Examination subsection. Duration of Program: A minimum period of three (3) years and maximum period of seven (7) years from the date of first registration will be allocated for the completion of the PhD-SDE program. The date of registration for students who transfer from MSc-SDE program at UPEI will be considered as the beginning of their MSc degree. Exceptional circumstances will be considered provided that they are supported by the student's supervisor(s) and properly communicated, discussed and supported by the supervisory committee. In all cases, extensions beyond this maximum period must be approved by the FSDE Graduate Studies Committee (GSC) and the Dean of the Faculty of Graduate Studies. Mentorship and Supervision: In the first semester of the PhD program, each student will be assigned a supervisory committee which will consist of the student's supervisor(s), three (3) members chosen from UPEI faculty. Up to two of these committee members can be UPEI adjunct faculty members with graduate faculty status. The primary supervisor must be a faculty member in the FSDE. Adjunct faculty with graduate faculty status may be faculty members from other universities or professionals with doctorates at external organizations with whom UPEI FSDE has research collaborations. The FSDE GSC has provided a document, "Guidelines for Graduate Supervision", that is shared with supervisor(s), supervisory committees and graduate students at orientation sessions and this document serves as a reference to follow throughout a student's program. Doctoral Research: Independent research will be the major focus of the PhD-SDE degree. In order to avoid undue extension of the time required to complete the degree, the research topic must be identified early and approved by the supervisory committee. The research should comprise an extensive body of original research in the student's field, making a true contribution	course. Seminars are held on a weekly basis, and each student must present their research work at least once a year and attend all the seminar sessions to receive Pass the SDE 8900 ~~8901~~ course, unless prior arrangement is made with the Supervisor and the Graduate Studies Coordinator. SDE 8010 will be evaluated as satisfactory/unsatisfactory, and the requirement for receiving satisfactory in the SDE 8010 is explained under the Doctoral Examination subsection. Duration of Program: A minimum period of three (3) years and maximum period of seven (7) years from the date of first registration will be allocated for the completion of the PhD-SDE program. The date of registration for students who transfer from MSc-SDE program at UPEI will be considered as the beginning of their MSc degree. Exceptional circumstances will be considered provided that they are supported by the student's supervisor(s) and properly communicated, discussed and supported by the supervisory committee. In all cases, extensions beyond this maximum period must be approved by the FSDE Graduate Studies Committee (GSC) and the Dean of the Faculty of Graduate Studies. Mentorship and Supervision: In the first semester of the PhD program, each student will be assigned a supervisory committee which will consist of the student's supervisor(s), three (3) members chosen from UPEI faculty. Up to two of these committee members can be UPEI adjunct faculty members with graduate faculty status. The primary supervisor must be a faculty member in the FSDE. Adjunct faculty with graduate faculty status may be faculty members from other universities or professionals with doctorates at external organizations with whom UPEI FSDE has research collaborations. The FSDE GSC has provided a document, "Guidelines for Graduate Supervision", that is shared with supervisor(s), supervisory committees and graduate students at orientation sessions and this document serves as a reference to follow throughout a student's program. Doctoral Research: Independent research will be the major focus of the PhD-SDE degree. In order to avoid undue extension of the time required to complete the degree, the research topic must be identified early and approved by the supervisory committee. The research should comprise an extensive body of original research in

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exemplifying the student's depth of knowledge, creativity, innovation and proven ability to make significant scientific research contributions. The PhD-SDE student must be able to articulate how their research demonstrates aspects of engineering design and sustainability. The supervisor(s) will meet with the student regularly, and the supervisory committee will meet at least twice a year with the student to provide feedback on the student's progress. Candidacy Examination: Doctoral students must complete a candidacy examination within two (2) years of entering the PhD program. Students who register for the MSc-SDE program at UPEI and then transfer into the PhD program must complete their candidacy exam within three (3) years of registering as a graduate student at UPEI (including the MSc period before the transfer). Before the exam, the student must present a thesis proposal abstract to the supervisory committee and obtain a recommendation that the student proceed with the oral candidacy exam. The supervisor(s) will inform the FSDE GSC of this decision, and will suggest the make-up of the candidacy examination committee. The candidacy examination committee will consist of two (2) members of the supervisory committee and one (1) UPEI faculty member external to FSDE who has graduate faculty status. This external member of the candidacy examination committee must have no conflict of interest with the student's supervisor(s). A designate from the FSDE GSC will act as Chair of the examination. The student must submit a thesis proposal to the candidacy examination committee at least two weeks before the examination date. The thesis proposal should address not only the research plan, but also a knowledge and implementation plan that demonstrates the student's reflection and understanding of the research topic within the context of sustainable design. After the student's presentation and question period, the examination committee will make a judgment of satisfactory or unsatisfactory. A judgment of satisfactory will result in the student being declared a PhD Candidate. If the judgment is unsatisfactory, the student will be required to retake the exam within 4 months. A second unsatisfactory judgment will result in the student being required to withdraw from the PhD program. If the student has not previously completed an MSc degree,	the student's field, making a true contribution exemplifying the student's depth of knowledge, creativity, innovation and proven ability to make significant scientific research contributions. The PhD-SDE student must be able to articulate how their research demonstrates aspects of engineering design and sustainability. The supervisor(s) will meet with the student regularly, and the supervisory committee will meet at least twice a year with the student to provide feedback on the student's progress. Candidacy Examination: Doctoral students must complete a candidacy examination within two (2) years of entering the PhD program. Students who register for the MSc-SDE program at UPEI and then transfer into the PhD program must complete their candidacy exam within three (3) years of registering as a graduate student at UPEI (including the MSc period before the transfer). Before the exam, the student must present a thesis proposal abstract to the supervisory committee and obtain a recommendation that the student proceed with the oral candidacy exam. The supervisor(s) will inform the FSDE GSC of this decision, and will suggest the make-up of the candidacy examination committee. The candidacy examination committee will consist of two (2) members of the supervisory committee and one (1) UPEI faculty member external to FSDE who has graduate faculty status. This external member of the candidacy examination committee must have no conflict of interest with the student's supervisor(s). A designate from the FSDE GSC will act as Chair of the examination. The student must submit a thesis proposal to the candidacy examination committee at least two weeks before the examination date. The thesis proposal should address not only the research plan, but also a knowledge and implementation plan that demonstrates the student's reflection and understanding of the research topic within the context of sustainable design. After the student's presentation and question period, the examination committee will make a judgment of satisfactory or unsatisfactory. A judgment of satisfactory will result in the student being declared a PhD Candidate. If the judgment is unsatisfactory, the student will be required to retake the exam within 4 months. A second unsatisfactory judgment will result in the student being required to withdraw from the PhD program. If the student has not previously completed an MSc degree,

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they are then free to enter the MSc program and transfer research and academic coursework. Thesis Dissertation: Each candidate for the PhD-SDE is required to submit a written thesis dissertation based upon the research conducted under supervision described above. The thesis dissertation must demonstrate the candidate's capacity for original and independent work, and should include a critical evaluation of work which has previously been done in the field of their research, as well as a clear understanding of sustainable design. The thesis dissertation must highlight new conclusions which are drawn from the candidate's own research work. Defence: The examination committee will be chaired by a representative from the FSDE GSC and will consist of the following: supervisor(s), two (2) members of the supervisory committee, one (1) UPEI faculty member external to FSDE who has graduate faculty status, and one (1) external examiner from outside the University of Prince Edward Island. These examiners must have no conflict of interest with the supervisor(s). In order to proceed to defence, the candidate must submit a copy of their dissertation to the supervisory committee for review and approval. Once approved by all members, the supervisor(s) will then submit the PhD dissertation and a list of potential external examiners to FSDE Graduate Studies Coordinator. The FSDE Graduate Studies Coordinator will then confirm the external examiners as well as the defence Chair, and notify the Deans of FSDE and Faculty of Graduate Studies. A copy of the dissertation will be shared with the examination committee and the defence date will be finalized. Prior to the exam, the external examiners will submit written evaluations of the dissertation to the defence Chair. This brief report will summarize their evaluation of the thesis and normally include a discussion of the scientific significance of the thesis with comments regarding its theoretical framework, methodology, findings, and interpretations. The report will consider its academic standard and quality, reflecting that the candidate meets the minimum requirements to qualify as a researcher, considering the candidate's formulation of research questions, logical and original approaches to testing stated hypotheses, and understanding of current methods and their limitations.	they are then free to enter the MSc program and transfer research and academic coursework. Thesis Dissertation: Each candidate for the PhD-SDE is required to submit a written thesis dissertation based upon the research conducted under supervision described above. The thesis dissertation must demonstrate the candidate's capacity for original and independent work, and should include a critical evaluation of work which has previously been done in the field of their research, as well as a clear understanding of sustainable design. The thesis dissertation must highlight new conclusions which are drawn from the candidate's own research work. Defence: The examination committee will be chaired by a representative from the FSDE GSC and will consist of the following: supervisor(s), two (2) members of the supervisory committee, one (1) UPEI faculty member external to FSDE who has graduate faculty status, and one (1) external examiner from outside the University of Prince Edward Island. These examiners must have no conflict of interest with the supervisor(s). In order to proceed to defence, the candidate must submit a copy of their dissertation to the supervisory committee for review and approval. Once approved by all members, the supervisor(s) will then submit the PhD dissertation and a list of potential external examiners to FSDE Graduate Studies Coordinator. The FSDE Graduate Studies Coordinator will then confirm the external examiners as well as the defence Chair, and notify the Deans of FSDE and Faculty of Graduate Studies. A copy of the dissertation will be shared with the examination committee and the defence date will be finalized. Prior to the exam, the external examiners will submit written evaluations of the dissertation to the defence Chair. This brief report will summarize their evaluation of the thesis and normally include a discussion of the scientific significance of the thesis with comments regarding its theoretical framework, methodology, findings, and interpretations. The report will consider its academic standard and quality, reflecting that the candidate meets the minimum requirements to qualify as a researcher, considering the candidate's formulation of research questions, logical and original approaches to testing stated hypotheses, and understanding of current methods and their limitations.

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The final oral examination of the PhD thesis will consist of a public research seminar, followed by questions from the doctoral examination committee. The examination will be public, but members of the audience may only question the candidate upon invitation of the Chair of the committee. After the defence seminar and question period, the committee will make a judgment of satisfactory or unsatisfactory. The members of the examination committee report individually on both the defence and the dissertation. The candidate passes if at least four (4) of the five (5) examiners votes positively. An abstention is regarded as a negative vote. Concurrently, the members sign the Certificate of Approval, to be submitted with the approved dissertation in its final form (after implementation of revisions requested by the committee at the defense) to the Dean of FSDE. The report to the Dean will record the decision as "unsatisfactory", or "satisfactory". If "unsatisfactory," the candidate will be given the opportunity of a second attempt. A second "unsatisfactory" will terminate candidacy at UPEI. Graduation: The candidate will receive the degree certificate at UPEI convocation upon successful completion of four (4) approved graduate courses (with minimum of 60% in each course), receiving Pass in SDE 8901 (Seminar) course, and receiving Satisfactory in SDE 8010 (PhD Thesis). List of Courses 1. Thesis and Seminar SDE 8010 PHD THESIS This is a research-oriented course in which students will conduct an extensive original research project, culminating in the submission and defence of a thesis. Students must register in this course each semester to maintain enrolment in the program. It embodies the research component of the PhD program. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8900 SEMINAR In this course students attend seminars on current topics in their research area of Sustainable Design Engineering and are expected to be seminar presenters. Techniques in	The final oral examination of the PhD thesis will consist of a public research seminar, followed by questions from the doctoral examination committee. The examination will be public, but members of the audience may only question the candidate upon invitation of the Chair of the committee. After the defence seminar and question period, the committee will make a judgment of satisfactory or unsatisfactory. The members of the examination committee report individually on both the defence and the dissertation. The candidate passes if at least four (4) of the five (5) examiners votes positively. An abstention is regarded as a negative vote. Concurrently, the members sign the Certificate of Approval, to be submitted with the approved dissertation in its final form (after implementation of revisions requested by the committee at the defense) to the Dean of FSDE. The report to the Dean will record the decision as "unsatisfactory", or "satisfactory". If "unsatisfactory," the candidate will be given the opportunity of a second attempt. A second "unsatisfactory" will terminate candidacy at UPEI. Graduation: The candidate will receive the degree certificate at UPEI convocation upon successful completion of four (4) approved graduate courses (with minimum of 60% in each course), receiving Pass in SDE 8901 (Seminar) course, and receiving Satisfactory in SDE 8010 (PhD Thesis). List of Courses 1. Thesis and Seminar SDE 8010 PHD THESIS This is a research-oriented course in which students will conduct an extensive original research project, culminating in the submission and defence of a thesis. Students must register in this course each semester to maintain enrolment in the program. It embodies the research component of the PhD program. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8900 SEMINAR In this course students attend seminars on current topics in their research area of Sustainable Design Engineering and are expected to be seminar presenters. Techniques in

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preparing scientific communication (oral presentations and poster displays) are also covered. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 1. Graduate-level Courses SDE 8020 QUALITY CONTROL AND PROJECT MANAGEMENT This course is an introduction to the most widely accepted project management practices in the workforce today. The student will learn the industrially accepted techniques associated with the management of time, cost, risk, and scope in order to achieve total project stakeholder satisfaction. The goal in this course is to prepare students with the most efficient and effective project management practices by applying these techniques to their graduate research work, and in so doing greatly increase their likelihood of managing successful projects during their careers. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 8021 CONTEMPORARY TOPICS IN ENGINEERING MANAGEMENT This graduate-level course is an introduction to the most widely accepted engineering management practices in the workforce today. Through lectures, case studies, guest speakers, and facilitated discussion, students will develop managerial knowledge and skills and be exposed to a spectrum of corporate activities in the engineering environment. Topics presented in this course include strategic management of research and development, organizational management, knowledge, risk and IP management, new product development, globalization, ethics, project management in a technology-based organization. This course will focus on "management for future engineering leaders" and examine national guidelines, practice engineering team dynamics, apply quantitative quality and supply chain concepts, and present financial/accounting basics for engineers. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	preparing scientific communication (oral presentations and poster displays) are also covered. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 2. ~~FSDE~~ PhD-SDE Graduate-level Courses SDE 8020 QUALITY CONTROL AND PROJECT MANAGEMENT This course is an introduction to the most widely accepted project management practices in the workforce today. The student will learn the industrially accepted techniques associated with the management of time, cost, risk, and scope in order to achieve total project stakeholder satisfaction. The goal in this course is to prepare students with the most efficient and effective project management practices by applying these techniques to their graduate research work, and in so doing greatly increase their likelihood of managing successful projects during their careers. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4020; credit cannot be received for both courses PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 8021 CONTEMPORARY TOPICS IN ENGINEERING MANAGEMENT This graduate-level course is an introduction to the most widely accepted engineering management practices in the workforce today. Through lectures, case studies, guest speakers, and facilitated discussion, students will develop managerial knowledge and skills and be exposed to a spectrum of corporate activities in the engineering environment. Topics presented in this course include strategic management of research and development, organizational management, knowledge, risk and IP management, new product development, globalization, ethics, project management in a technology-based organization. This course will focus on "management for future engineering leaders" and examine national guidelines, practice engineering team dynamics, apply quantitative quality and supply chain concepts, and present financial/accounting basics for engineers. Graduate-level project will be required as defined in

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SDE 8030 CONTEMPORARY TOPICS IN SUSTAINABLE DESIGN ENGINEERING In this course students will be exposed to and examine the concepts underlying sustainable design engineering as they pertain to engineering practice and in particular engineering research and the development of new technologies. Sustainable design engineering can be defined as an engineering design process which considers not only the key performance indicators and functional characteristics of the system being developed but also the environmental, social and economic context and impacts of the system. Recent advances in sustainability research have focused on the complex interactions between these areas, evolving from “green engineering” to a full consideration of sustainability. In order to develop sustainable solutions, engineers and researchers must be able to critically evaluate their work in this context. To this end, students will examine case studies and relevant readings on such topics as sustainability indicators, techno-economic and life cycle assessment, stakeholder engagement, real time technology assessment, engineering justice, and design for sustainability. While approaches for addressing the specific areas of environmental, social and economic sustainability will be covered, the focus of the course will be on the interactions between these areas. A key outcome of this course will be a paper critically examining the student’s research topic from the perspective of sustainable design engineering. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8031 CONTEMPORARY TOPICS IN USER-CENTRED ENGINEERING DESIGN User-centred design offers a powerful and systematic approach to understanding users and their needs and delivering effective design solutions in many domains including engineering, technology and health sciences. This course will introduce students to a variety of principles, practices and research methods for designing, developing and evaluating products, systems and solutions based on the users’ needs, and context. Students will learn human factors, ergonomics, cognitive and perceptual psychology principles for designing products, information displays and complex systems. Students will be exposed to various subjective and objective metrics and methods for evaluations and usability studies. Students will also be introduced to	consultation with the instructor. Cross-level listed with ENGN-4021; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8030 CONTEMPORARY TOPICS IN SUSTAINABLE DESIGN ENGINEERING In this course students will be exposed to and examine the concepts underlying sustainable design engineering as they pertain to engineering practice and in particular engineering research and the development of new technologies. Sustainable design engineering can be defined as an engineering design process which considers not only the key performance indicators and functional characteristics of the system being developed but also the environmental, social and economic context and impacts of the system. Recent advances in sustainability research have focused on the complex interactions between these areas, evolving from "green engineering" to a full consideration of sustainability. In order to develop sustainable solutions, engineers and researchers must be able to critically evaluate their work in this context. To this end, students will examine case studies and relevant readings on such topics as sustainability indicators, techno-economic and life cycle assessment, stakeholder engagement, real time technology assessment, engineering justice, and design for sustainability. While approaches for addressing the specific areas of environmental, social and economic sustainability will be covered, the focus of the course will be on the interactions between these areas. A key outcome of this course will be a paper critically examining the student's research topic from the perspective of sustainable design engineering. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4030; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8031 CONTEMPORARY TOPICS IN USER-CENTRED ENGINEERING DESIGN User-centred design offers a powerful and systematic approach to understanding users and their needs and delivering effective design solutions in many domains

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apply user-centred design for developing sustainable products and systems. PREREQUISITES: Admission to the graduate program in School of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8040 DESIGN OF EXPERIMENTS This course focuses on the design, implementation, and analysis of engineering, scientific, and computer-based experiments. The course will examine the proper and scientific approach to experimentation, modeling, simulation, and analysis of data. Various designs are discussed and their respective advantages and disadvantages are noted. Factorial designs and sensitivity analysis will be studied in detail because of its relevance to various industries. Use of software for designing and analyzing experiments will also be used. For experiments that involved mainly physical quantities and natural phenomena, techniques of dimensional analysis will also be introduced. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8050 ENGINEERING RESEARCH METHODS & EXPERIMENT DESIGN This course will introduce students to the elements of a research project and will focus on quantitative research methodologies. Students will practice the planning, implementation, analysis, and documentation for a research project of their own design. Topics will include: performing a literature review, developing a hypothesis, creating a research plan, collecting data, analyzing the results, and compiling a research report. Students will use tools for quantitative data analysis and will explore reliability, validation, and verification concepts. Students will report findings in a technical presentation. The course encourages students to develop their research question and perform a sample experiment to apply lessons learned to their main research topic. Intellectual property rights and engineering ethics topics will be explored. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8060 MODELING, CONTROL, AND DESIGN OF ENERGY SYSTEMS	including engineering, technology and health sciences. This course will introduce students to a variety of principles, practices and research methods for designing, developing and evaluating products, systems and solutions based on the users' needs, and context. Students will learn human factors, ergonomics, cognitive and perceptual psychology principles for designing products, information displays and complex systems. Students will be exposed to various subjective and objective metrics and methods for evaluations and usability studies. Students will also be introduced to apply user-centred design for developing sustainable products and systems. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4031; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8040 DESIGN OF EXPERIMENTS This course focuses on the design, implementation, and analysis of engineering, scientific, and computer-based experiments. The course will examine the proper and scientific approach to experimentation, modeling, simulation, and analysis of data. Various designs are discussed and their respective advantages and disadvantages are noted. Factorial designs and sensitivity analysis will be studied in detail because of its relevance to various industries. Use of software for designing and analyzing experiments will also be used. For experiments that involved mainly physical quantities and natural phenomena, techniques of dimensional analysis will also be introduced. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4040; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8050 ENGINEERING RESEARCH METHODS & EXPERIMENT DESIGN This course will introduce students to the elements of a research project and will focus on quantitative research methodologies. Students will practice the planning, implementation, analysis, and documentation for a research project of their own design. Topics will include:

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This course focuses on the understanding of the physical processes underlying the energy conversion process from wind and solar energy. Students will have an advanced knowledge of aerodynamics and structural dynamics, and they will understand the main strategies used for controlling these machines over their complete operating range. A specific goal of the course is to provide students with a multidisciplinary vision on the physics of energy systems, and an understanding of the methods used for their modeling and simulation. A particular emphasis will be placed on design, and on the effects of design choices on the cost of energy. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8061 OPTIMIZATION IN ENERGY INFRASTRUCTURE The course aims to provide the knowledge about the application of various optimization methods in designing energy infrastructure. The course starts with the introduction to various optimization algorithms. Thereafter, the integration of energy modeling and simulation with optimization algorithms will be demonstrated. This course will also cover the optimization of distributed energy systems using single and multi-objective optimization methods. Several minor projects will be introduced to formulate the energy system optimization problem deciding design variables, objectives, and constraints. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8062 SOLAR BUILDINGS AND NEIGHBORHOODS The course is aimed to discuss the design considerations in designing solar buildings and neighborhoods. The course will start with the historical background of solar neighborhoods in modern and ancient history. Thereafter, passive solar design considerations in various small and large scale buildings will be discussed. Principles of solar design such as building site setting, building shape, building envelopes, active and passive based heating and cooling techniques will be introduced. The active electrical and thermal energy generation and storage strategies will be discussed. Energy modeling and simulation tools used for the assessment of solar access of	performing a literature review, developing a hypothesis, creating a research plan, collecting data, analyzing the results, and compiling a research report. Students will use tools for quantitative data analysis and will explore reliability, validation, and verification concepts. Students will report findings in a technical presentation. The course encourages students to develop their research question and perform a sample experiment to apply lessons learned to their main research topic. Intellectual property rights and engineering ethics topics will be explored. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4050; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8060 MODELING, CONTROL, AND DESIGN OF ENERGY SYSTEMS This course focuses on the understanding of the physical processes underlying the energy conversion process from wind and solar energy. Students will have an advanced knowledge of aerodynamics and structural dynamics, and they will understand the main strategies used for controlling these machines over their complete operating range. A specific goal of the course is to provide students with a multidisciplinary vision on the physics of energy systems, and an understanding of the methods used for their modeling and simulation. A particular emphasis will be placed on design, and on the effects of design choices on the cost of energy. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4060; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8061 OPTIMIZATION IN ENERGY INFRASTRUCTURE The course aims to provide the knowledge about the application of various optimization methods in designing energy infrastructure. The course starts with the introduction to various optimization algorithms. Thereafter, the integration of energy modeling and simulation with optimization algorithms will be demonstrated. This course will also cover the

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various building will be demonstrated. Various case studies related to solar buildings and neighborhood will be taken for assignments. For the term project, incorporation of solar strategies for modifying existing Canadian buildings and neighborhoods will be assigned to groups of students. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8063 CONTEMPORARY TOPICS IN SUSTAINABLE ENERGY This broadly applicable course discusses global energy usage and exposes students to current trends in local and global sustainable energy initiatives (i.e., energy generation and storage) and applications. Present and future global energy consumption and related CO2 emissions are considered and discussed. Students will be exposed to and analyze case studies as well as develop and design their own globally relevant solution concepts. Students will ultimately gain an enhanced, quantitative appreciation for the challenges and opportunities related to global energy system decarbonization. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8070 NOVEL ENGINEERED MATERIALS FOR SUSTAINABLE APPLICATIONS This course is a graduate-level examination of the properties and processing of novel, engineered materials for sustainable applications. Fundamental concepts of solid-state diffusion, phase transformations, amorphous-to-crystalline kinetics, rapid solidification – for nuclear energy, more electric generation, renewable energy systems, additive manufacturing, modeling and simulation of the nanoscale will be discussed. As well, the relationships between the performance of electrical, optical, and magnetic devices and the microstructural and defect characteristics of the materials from which they are constructed will be explored. Focusing on functional materials for emerging technologies and emphasizing a device-design approach, applications will center around current research in the Faculty of Sustainable Design Engineering. PREREQUISITE: Admission to the graduate program in	optimization of distributed energy systems using single and multi-objective optimization methods. Several minor projects will be introduced to formulate the energy system optimization problem deciding design variables, objectives, and constraints. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4061; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8062 SOLAR BUILDINGS AND NEIGHBORHOODS The course is aimed to discuss the design considerations in designing solar buildings and neighborhoods. The course will start with the historical background of solar neighborhoods in modern and ancient history. Thereafter, passive solar design considerations in various small and large scale buildings will be discussed. Principles of solar design such as building site setting, building shape, building envelopes, active and passive based heating and cooling techniques will be introduced. The active electrical and thermal energy generation and storage strategies will be discussed. Energy modeling and simulation tools used for the assessment of solar access of various building will be demonstrated. Various case studies related to solar buildings and neighborhood will be taken for assignments. For the term project, incorporation of solar strategies for modifying existing Canadian buildings and neighborhoods will be assigned to groups of students. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4062; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8063 CONTEMPORARY TOPICS IN SUSTAINABLE ENERGY This broadly applicable course discusses global energy usage and exposes students to current trends in local and global sustainable energy initiatives (i.e., energy generation and storage) and applications. Present and future global energy consumption and related CO2 emissions are considered and discussed. Students will be exposed to and analyze case studies as well as develop

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Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8080 INDUSTRIAL MACHINE VISION This course focuses on computer vision with an emphasis on techniques for automated inspection, object recognition, mechanical metrology, and robotics. Image processing courses typically focus for image enhancement, restoration, filtering, smoothing, etc. These topics will be covered to a certain degree but the main focus will be on image segmentation, feature extraction, morphological operators, recognition and photogrammetry. Issues related to the efficient software implementation of these techniques for real-time applications will also be addressed. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8081 MODERN MECHATRONIC SYSTEMS This course emphasizes how the abstract concepts of control theory and advanced design tools are used pragmatically in engineering practice in the mechatronics field. This course explores current topics of modern mechatronics, from the application of complex systems through dimensionality reduction, machine learning, and dynamical systems modelling to innovative methods and algorithms such as augmented reality, medical image analysis, and automated mapping of environments. Above all, this course is designed to entice students to think, ask questions of existing theory, and understand the essence of mechatronics systems. To this end, students will develop and implement practical, hands-on-with-hardware applications of the control system analysis and design principles that are the subject matter of their research. The findings and results of this project will be presented in the format of a manuscript that incorporates the research methodology, their final product, and critical thinking over the mechatronic topic. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8100 BIOFUEL AND BIOMASS TECHNOLOGY This course focuses on advanced concepts in understanding biofuels and bioenergy systems, renewable feedstocks, their production, availability and attributes	and design their own globally relevant solution concepts. Students will ultimately gain an enhanced, quantitative appreciation for the challenges and opportunities related to global energy system decarbonization. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4063; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8070 NOVEL ENGINEERED MATERIALS FOR SUSTAINABLE APPLICATIONS This course is a graduate-level examination of the properties and processing of novel, engineered materials for sustainable applications. Fundamental concepts of solid-state diffusion, phase transformations, amorphous-to-crystalline kinetics, rapid solidification – for nuclear energy, more electric generation, renewable energy systems, additive manufacturing, modeling and simulation of the nanoscale will be discussed. As well, the relationships between the performance of electrical, optical, and magnetic devices and the microstructural and defect characteristics of the materials from which they are constructed will be explored. Focusing on functional materials for emerging technologies and emphasizing a device-design approach, applications will center around current research in the Faculty of Sustainable Design Engineering. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4070; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8080 INDUSTRIAL MACHINE VISION This course focuses on computer vision with an emphasis on techniques for automated inspection, object recognition, mechanical metrology, and robotics. Image processing courses typically focus for image enhancement, restoration, filtering, smoothing, etc. These topics will be covered to a certain degree but the main focus will be on image segmentation, feature extraction, morphological operators, recognition and photogrammetry. Issues related to the efficient software

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for biofuel/bioenergy production, types of biomass derived fuels and energy, thermochemical conversion of biomass to heat, power and fuel, biochemical conversion of biomass to fuel environmental aspects of biofuel production, economics and life-cycle analysis of biofuel, and value adding of biofuel residues. Students will analyze, as well as prepare, case studies on biofuel production. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8101 ADVANCES IN BIORESOURCE ENGINEERING The quest for food security, renewable energy, climate change and demand for sustainable fuels has increased focus on biomass conversion and technological interventions to cope with these challenges. This course covers advanced topics in bioresource engineering to acquire an understanding of sustainability challenges in bioresource sector and propose optimal climate smart solutions by implementing technologies and processes. The course is delivered in three complementary modules: i) deep learning and artificial intelligence for sustainable food production, ii) biofuels and biomaterials, and iii) the design of biomass conversion reactors. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 • Cross-Level Listed Graduate Courses SDE 8230 TECHNOLOGY MANAGEMENT & ENTREPRENEUR This course provides an overview on how to start and sustain a technology-oriented company. Topics discussed will include the role of technology in society, intellectual property, patents, business plans, financial planning, sources of capital, business structure, liability, tax implications, sales, marketing, operational and human resource management. This course will be taught using problem-based and experiential learning strategies with involvement from real life entrepreneurs as motivators and facilitators. Graduate-level project will be defined. Cross-level listed with ENGN 3430; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in	implementation of these techniques for real-time applications will also be addressed. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4080; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8081 MODERN MECHATRONIC SYSTEMS This course emphasizes how the abstract concepts of control theory and advanced design tools are used pragmatically in engineering practice in the mechatronics field. This course explores current topics of modern mechatronics, from the application of complex systems through dimensionality reduction, machine learning, and dynamical systems modelling to innovative methods and algorithms such as augmented reality, medical image analysis, and automated mapping of environments. Above all, this course is designed to entice students to think, ask questions of existing theory, and understand the essence of mechatronics systems. To this end, students will develop and implement practical, hands-on-with-hardware applications of the control system analysis and design principles that are the subject matter of their research. The findings and results of this project will be presented in the format of a manuscript that incorporates the research methodology, their final product, and critical thinking over the mechatronic topic. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4081; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8100 BIOFUEL AND BIOMASS TECHNOLOGY This course focuses on advanced concepts in understanding biofuels and bioenergy systems, renewable feedstocks, their production, availability and attributes for biofuel/bioenergy production, types of biomass derived fuels and energy, thermochemical conversion of biomass to heat, power and fuel, biochemical conversion of biomass to fuel environmental aspects of biofuel production, economics and life-cycle analysis of biofuel,

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Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8310 ADVANCED FABRICATION TECHNIQUES AND COMPUTER-INTEGRATED MANUFACTURING This course concentrates on manufacturing knowledge with a focus on advanced fabrication techniques (AFT) and Computer Integrated Manufacturing (CIM). Students will expand their knowledge of traditional processes including CAD/CAM, forming, welding, milling, etc. leading into innovative advanced fabrication techniques in additive and precision manufacturing, next generation electronics, robotics and smart automation (CIM), and sustainable and green manufacturing modeling and simulation in the manufacturing process developed through lectures and labs. Integration of CIM into supply chain design and management is emphasized based on synergistic application of mechatronics approach and philosophy. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4310; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8320 CONTROL SYSTEM DESIGN This course will provide students with an overview of system modelling and control methodologies of single/multiple input/output systems, e.g., energy transport control, reactor control, heat exchanger control, power production, and mechatronic systems. Students will learn classical control methods e.g., feedforward, feedbacks, cascade, decoupling to modern control methods, LQR, predictive control, optimal and robust control. Students will be equipped with knowledge and skills for analyzing stability, controllability and observability of state-space representation modelled systems. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4320; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	and value adding of biofuel residues. Students will analyze, as well as prepare, case studies on biofuel production. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4100; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8101 ADVANCES IN BIORESOURCE ENGINEERING The quest for food security, renewable energy, climate change and demand for sustainable fuels has increased focus on biomass conversion and technological interventions to cope with these challenges. This course covers advanced topics in bioresource engineering to acquire an understanding of sustainability challenges in bioresource sector and propose optimal climate smart solutions by implementing technologies and processes. The course is delivered in three complementary modules: i) deep learning and artificial intelligence for sustainable food production, ii) biofuels and biomaterials, and iii) the design of biomass conversion reactors. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN-4101; credit cannot be received for both courses. PREREQUISITES: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 • ~~Cross Level Listed Graduate Courses~~ ~~SDE 8230 TECHNOLOGY MANAGEMENT & ENTREPRENEUR~~ ~~This course provides an overview on how to start and sustain a technology oriented company. Topics discussed will include the role of technology in society, intellectual property, patents, business plans, financial planning, sources of capital, business structure, liability, tax implications, sales, marketing, operational and human resource management. This course will be taught using problem-based and experiential learning strategies with involvement from real life entrepreneurs as motivators and facilitators. Graduate level project will be defined. Cross-level listed with ENGN 3430; credit cannot be received for both courses.~~

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SDE 8330 INNOVATIONS IN BIOMEDICAL ENGINEERING This course provides an overview of the subdisciplines that are included in field of biomedical engineering. Through a hands-on approach, the course introduces topics including biotransport, bioelectrical phenomena, bioinstrumentation, biomechanics, diagnostic devices, medical imaging, rehabilitation, biomaterials, tissue engineering, biosensors, lab-on-a-chip and micro- and nano-technology. The course also introduces the basics of medical device regulations and ethics of medical instrumentation. Students will gain an appreciation for the collaborative, interdisciplinary nature of engineering in medicine and its potential impact on society. Cross-level listed with ENGN 4330; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8350 ADVANCED ROBOTIC DYNAMICS AND CONTROL This course advances the fundamentals of robotics through exposure to in-depth knowledge and understanding of kinematics, dynamics, control and trajectory with applications to autonomous vehicles, automated manufacturing and processing and mobile robotics. Areas of interest include: position transformation and control, rigid body motion, kinematic control, compliance and force control. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4350; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8370 FLUID POWER CONTROL This course covers the analysis and design of basic hydraulic and pneumatic circuits and systems. Topics include a review of the fundamentals of fluid mechanics including flow through valves, fittings, and pipe; classification of hydrostatic pumps and motors; control valves; hydraulic accumulators; sizing of practical hydraulic circuits; thermal and energy considerations; electrohydraulic control and modeling of hydraulic control systems. The latter part of the course	~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8310 ADVANCED FABRICATION TECHNIQUES AND COMPUTER INTEGRATED MANUFACTURING~~ ~~This course concentrates on manufacturing knowledge with a focus on advanced fabrication techniques (AFT) and Computer Integrated Manufacturing (CIM). Students will expand their knowledge of traditional processes including CAD/CAM, forming, welding, milling, etc. leading into innovative advanced fabrication techniques in additive and precision manufacturing, next generation electronics, robotics and smart automation (CIM), and sustainable and green manufacturing modeling and simulation in the manufacturing process developed through lectures and labs. Integration of CIM into supply chain design and management is emphasized based on synergistic application of mechatronics approach and philosophy. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4310; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8320 CONTROL SYSTEM DESIGN~~ ~~This course will provide students with an overview of system modelling and control methodologies of single/multiple input/output systems, e.g., energy transport control, reactor control, heat exchanger control, power production, and mechatronic systems. Students will learn classical control methods e.g., feedforward, feedbacks, cascade, decoupling to modern control methods, LQR, predictive control, optimal and robust control. Students will be equipped with knowledge and skills for analyzing stability, controllability and observability of state-space representation modelled systems. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4320; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~

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focuses on pneumatic systems including pneumatic cylinders and motors, control valves, and compressor technology. The application of Programmable Logic Controls (PLCs) to industrial automation and the sequential control of pneumatic actuators is also addressed. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4370; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8410 MACRO ENERGY SYSTEMS This course covers methods for analyzing energy supply, conversion processes, and end-use at the system level. Aspects considered include the dynamics of energy supply and demand, efficiencies of energy conversion, characteristics of energy currencies, and energy needs across different sectors. Students will characterize methods of delivering energy services such as heat, light, industrial power and transportation. Energy analysis will be introduced and used to build a quantitative framework for integrating techno-economic analysis of energy system components, with emphasis on elements such as fossil fuels and nuclear power. Students will gain an enhanced, quantitative appreciation for the sustainability, emissions, cost and energy intensity aspects of energy services delivery. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4410; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8440 ADVANCED ENERGY STORAGE This course considers advanced technical analysis of energy storage systems. A comprehensive overview of all industrially relevant energy storage systems is reviewed and emphasis is placed on promising energy storage technologies of the future. Chemical, thermal and kinetic storage technologies will be discussed in detail. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4440; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in	~~SDE 8330 INNOVATIONS IN BIOMEDICAL ENGINEERING~~ ~~This course provides an overview of the subdisciplines that are included in field of biomedical engineering. Through a hands-on approach, the course introduces topics including biotransport, bioelectrical phenomena, bioinstrumentation, biomechanics, diagnostic devices, medical imaging, rehabilitation, biomaterials, tissue engineering, biosensors, lab-on-a-chip and micro- and nano-technology. The course also introduces the basics of medical device regulations and ethics of medical instrumentation. Students will gain an appreciation for the collaborative, interdisciplinary nature of engineering in medicine and its potential impact on society.~~ ~~Cross-level listed with ENGN 4330; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8350 ADVANCED ROBOTIC DYNAMICS AND CONTROL~~ ~~This course advances the fundamentals of robotics through exposure to in-depth knowledge and understanding of kinematics, dynamics, control and trajectory with applications to autonomous vehicles, automated manufacturing and processing and mobile robotics. Areas of interest include: position transformation and control, rigid body motion, kinematic control, compliance and force control. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4350; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8370 FLUID POWER CONTROL~~ ~~This course covers the analysis and design of basic hydraulic and pneumatic circuits and systems. Topics include a review of the fundamentals of fluid mechanics including flow through valves, fittings, and pipe; classification of hydrostatic pumps and motors; control valves; hydraulic accumulators; sizing of practical hydraulic circuits; thermal and energy considerations; electrohydraulic control and modeling of hydraulic control systems. The latter part of the course~~

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Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8450 FLUID LOADS ON ENERGY STRUCTURES This course is an introduction to the loads applied on structures from wind, waves, and currents, and their heightened relevance to structures designed for energy conversion. Phenomena to be discussed include lift and drag, boundary layers, vortex-induced vibrations, wakes, hydrostatic loading, and water waves. A selection of engineering methods will be introduced and brought to bear on these topics, such as potential flow theory, blade-element theory, Airy wave theory and Morison's equation. Dimensional analysis will be introduced to characterize flow problems. Design implications will be discussed for a selection of relevant energy conversion structures such as aircraft wings, wind turbines, breakwaters, marine vessels, and offshore energy platforms. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4450; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8470 MICRO GRIDS This course focuses on the concept, operation and optimization of renewable-energy-based micro-grids. Concepts introduced and considered include renewable energy resources, integration technologies, grid-connected operation, islanded grid operation, energy storage integration and the optimal dimensioning and mixing of multiple energy sources where some are stochastic in nature and some are dispatchable. Existing and future energy storage technologies will also be discussed. This course is based on energy flow analysis and makes extensive use of software simulation tools. Students will develop a framework for performing techno-economic assessments of micro-grid architectures and designs. A strong background in electrical power systems is not necessarily required. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4470; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in	~~focuses on pneumatic systems including pneumatic cylinders and motors, control valves, and compressor technology. The application of Programmable Logic Controls (PLCs) to industrial automation and the sequential control of pneumatic actuators is also addressed. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4370; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8410 MACRO ENERGY SYSTEMS~~ ~~This course covers methods for analyzing energy supply, conversion processes, and end-use at the system level. Aspects considered include the dynamics of energy supply and demand, efficiencies of energy conversion, characteristics of energy currencies, and energy needs across different sectors. Students will characterize methods of delivering energy services such as heat, light, industrial power and transportation. Energy analysis will be introduced and used to build a quantitative framework for integrating techno-economic analysis of energy system components, with emphasis on elements such as fossil fuels and nuclear power. Students will gain an enhanced, quantitative appreciation for the sustainability, emissions, cost and energy intensity aspects of energy services delivery. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4410; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8440 ADVANCED ENERGY STORAGE~~ ~~This course considers advanced technical analysis of energy storage systems. A comprehensive overview of all industrially relevant energy storage systems is reviewed and emphasis is placed on promising energy storage technologies of the future. Chemical, thermal and kinetic storage technologies will be discussed in detail. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4440; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in~~

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Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8510 GEOINFORMATICS IN BIORESOURCES This course covers the theory and practice of geoinformatics and their applications to problems in bioresources using digital mapping and spatial analysis. Hands on laboratories will provide students with an experience to collect georeferenced data using differential global positioning system, followed by mapping and analysis in geographical information system. Topics include datums, map projections and transformations, vector and raster data, geo-spatial analysis, geo-statistics and interpolation techniques. This course will also cover the fundamentals of remote sensing, data collection with sensors, and spatial and temporal aspects of the bio-resources attributes. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4510; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8530 FUNDAMENTALS OF AGRICULTURE MACHINERY This course highlights the fundamentals of mechanized agriculture machinery from soil preparation, planting, and crop management to mechanical harvesting. The machines and their unit operation are analyzed with respect functions, work rates, material flow and power usage. The machine performance relating to work quality and environmental effects will also be evaluated. The labs will emphasize on safety, basic maintenance, adjustment, calibrations of equipment and performance testing. This course also covers the variable rate applicators for site-specific application of inputs, auto guidance system, data acquisition and management for intelligent decision making for machines, and precision agriculture technologies. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4530; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	~~Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8450 FLUID LOADS ON ENERGY STRUCTURES~~ ~~This course is an introduction to the loads applied on structures from wind, waves, and currents, and their heightened relevance to structures designed for energy conversion. Phenomena to be discussed include lift and drag, boundary layers, vortex-induced vibrations, wakes, hydrostatic loading, and water waves. A selection of engineering methods will be introduced and brought to bear on these topics, such as potential flow theory, blade-element theory, Airy wave theory and Morison's equation. Dimensional analysis will be introduced to characterize flow problems. Design implications will be discussed for a selection of relevant energy conversion structures such as aircraft wings, wind turbines, breakwaters, marine vessels, and offshore energy platforms. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4450; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8470 MICRO GRIDS~~ ~~This course focuses on the concept, operation and optimization of renewable-energy-based micro-grids. Concepts introduced and considered include renewable energy resources, integration technologies, grid-connected operation, islanded grid operation, energy storage integration and the optimal dimensioning and mixing of multiple energy sources where some are stochastic in nature and some are dispatchable. Existing and future energy storage technologies will also be discussed. This course is based on energy flow analysis and makes extensive use of software simulation tools. Students will develop a framework for performing techno-economic assessments of micro-grid architectures and designs. A strong background in electrical power systems is not necessarily required. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4470; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in~~

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SDE 8550 CHEMICAL AND BIOLOGICAL PROCESSES Processes used in the chemical and biological industries, which emphasize underlying physical, chemical, and biological principles, will be introduced. By carrying out the mass and energy balances, students will conduct design and economic assessment of major chemical and biological engineering processes. Introduction to modelling of chemical processes will be covered in this course. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4550; credit cannot be received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3 SDE 8810 DIRECTED STUDIES IN SUSTAINABLE DESIGN ENGINEERING Under the supervision of a faculty member, a graduate student independently pursues an area of interest in depth. The course includes an extensive literature review of the specific discipline, directed research on the topic, or collection and analysis of data. The student may be required to present a written report and/or present a seminar in the area. Topics must not be a part of the student's thesis research although they may be in a complementary area. Course outlines must be approved by the supervisory committee, the department Chair, and the Dean of Science. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering and permission of supervisor HOURS OF CREDIT: 3 SDE 8830 BIOMEDICAL SIGNAL PROCESSING This course is an introduction to the basics of viewing, processing, and analyzing of biosignals, or signals originating from living beings. Biosignals may be characterized as bioelectrical signals which can be composed of both electrical and non-electrical parts. Topics include both linear and nonlinear systems, signal conditioning or filtering, improving signal quality (signal-to-noise ratio) through averaging techniques, and signal representations in both the time and frequency domains. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4830; credit cannot be	~~Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8510 GEOINFORMATICS IN BIORESOURCES~~ ~~This course covers the theory and practice of geoinformatics and their applications to problems in bioresources using digital mapping and spatial analysis. Hands on laboratories will provide students with an experience to collect georeferenced data using differential global positioning system, followed by mapping and analysis in geographical information system. Topics include datums, map projections and transformations, vector and raster data, geo-spatial analysis, geo-statistics and interpolation techniques. This course will also cover the fundamentals of remote sensing, data collection with sensors, and spatial and temporal aspects of the bio-resources attributes. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4510; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8530 FUNDAMENTALS OF AGRICULTURE MACHINERY~~ ~~This course highlights the fundamentals of mechanized agriculture machinery from soil preparation, planting, and crop management to mechanical harvesting. The machines and their unit operation are analyzed with respect functions, work rates, material flow and power usage. The machine performance relating to work quality and environmental effects will also be evaluated. The labs will emphasize on safety, basic maintenance, adjustment, calibrations of equipment and performance testing. This course also covers the variable rate applicators for site-specific application of inputs, auto guidance system, data acquisition and management for intelligent decision making for machines, and precision agriculture technologies. Graduate-level project will be required as defined in consultation with the instructor. Cross-level listed with ENGN 4530; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~

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received for both courses. PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering HOURS OF CREDIT: 3	~~SDE 8550 CHEMICAL AND BIOLOGICAL PROCESSES~~ ~~Processes used in the chemical and biological industries, which emphasize underlying physical, chemical, and biological principles, will be introduced. By carrying out the mass and energy balances, students will conduct design and economic assessment of major chemical and biological engineering processes. Introduction to modelling of chemical processes will be covered in this course. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4550; credit cannot be received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8810 DIRECTED STUDIES IN SUSTAINABLE DESIGN ENGINEERING~~ ~~Under the supervision of a faculty member, a graduate student independently pursues an area of interest in depth. The course includes an extensive literature review of the specific discipline, directed research on the topic, or collection and analysis of data. The student may be required to present a written report and/or present a seminar in the area. Topics must not be a part of the student's thesis research although they may be in a complementary area. Course outlines must be approved by the supervisory committee, the department Chair, and the Dean of Science.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering and permission of supervisor~~ ~~HOURS OF CREDIT: 3~~ ~~SDE 8830 BIOMEDICAL SIGNAL PROCESSING~~ ~~This course is an introduction to the basics of viewing, processing, and analyzing of biosignals, or signals originating from living beings. Biosignals may be characterized as bioelectrical signals which can be composed of both electrical and non-electrical parts. Topics include both linear and nonlinear systems, signal conditioning or filtering, improving signal quality (signal-to-noise ratio) through averaging techniques, and signal representations in both the time and frequency domains. Graduate-level project will be required as defined in consultation with the instructor.~~ ~~Cross-level listed with ENGN 4830; credit cannot be~~

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	~~received for both courses.~~ ~~PREREQUISITE: Admission to the graduate program in Faculty of Sustainable Design Engineering~~ ~~HOURS OF CREDIT: 3~~

Rationale for Change: To identify which graduate-level courses are eligible for the PhD-SDE program. In addition to the change proposed here to clarify this, additional clarification is also provided in the calendar descriptions of each ineligible course to indicate they are not eligible for the PhD-SDE program.

Effective Term: Fall 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Graduate Studies Committee	December 12, 2022
Faculty/School Approval: FSDE Faculty	January 18, 2023
Faculty Dean's Approval: Wayne Peters	January 18, 2023
Grad. Studies Dean's Approval: Marva Sweeney-Nixon	February 3, 2023
Registrar's Office Approval: Darcy McCardle	February 15, 2023

Form Version: September 2022

SUMMARY OF FACULTY OF IKERAS MOTION #'S 65-82

Faculty of Indigenous Knowledge, Education, Research and Applied Studies (IKERAS)

APCC Curriculum Changes

February 2023

New Courses:

IKE 2052 Indigenous Resistance and Decolonizing

IKE 2110 Métis Culture, History and Governance

IKE 2220 Beadwork: The Symbols of Indigenous Culture Resilience and Value

IKE 2230 The Mi'kmaq of Eastern Canada

IKE 2320 Wabanaki Confederacy

IKE 3010 Mi'kmaq Language II

IKE 3056 Indigenous Peoples and Justice

IKE 3066 Introduction to Indigenous Research Methodologies

IKE 3221 Mi'kmaq Spiritualities

IKE 3340 Wabanaki Peace & Friendship Treaties

IKE 3350 Storytelling and Wabanaki Legends

IKE 3410 Canadian Treaties and Self Government

IKE 4520 Islands of Indigeneity

IKE 4096 Applied Indigenous Justice

IKE 4090 Indigenous Special Topics

IKE 4210 Gijituaqasin: On the Land

IKE 4240 Ika'taquey: Indigenous Gardening & Mediative Practices

IKE 4410 Indigenous Territories Use-and-Occupancy Research Methods

NEW COURSE PROPOSAL

Motion #65

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 2052 Indigenous Resistance and Decolonizing be approved as proposed.

Course Number and Title	IKE 2052 Indigenous Resistance and Decolonizing
Description	Students will be introduced to how colonialism has caused and continues to cause irreparable harm to Indigenous and non-Indigenous peoples in Canada and throughout the world. The harm permeates all relations including our animals and plants, our planet (Mother Earth), and those elements that sustain life. Students learn about the Indigenous warrior spirit which has risen to resist the on-going colonial and post-colonial hegemony. Students will understand the complexities and work of decolonizing by which resistance takes shape and hold in a time when all relations need it most.
Cross-Listing	Click here to enter text.
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	N/A

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

NEW COURSE PROPOSAL — Motion #65

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 2052 Indigenous Resistance and Decolonizing

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

The Library has made a budgetary request to purchase materials to provide access to books, videos, databases, and other resources in the APCC form included with the IKE-1040 New Course form previously submitted. This is a scholarly and research area that is growing and we have requested annual funding to support ongoing purchases and maintain subscriptions for these courses and the program.

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Colonialism (1601)
      - Decolonization (522)
      - Decolonization > Study and teaching. (23)
      - Indigenous peoples Politics and government. (204)
      - Indians of North America > Canada > Government relations (393)
      - Indians of North America > Legal status, laws, etc. > Canada (207)
      - Indians of North America > Canada > Treaties (71)
      - Canada. Indian Act (36)
      - Indigenous peoples > Legal status, laws, etc. > Canada. (92)
      - Indigenous resistance (915)
      - Native peoples > Canada > Government relations. (581)
      - Native peoples > Civil rights > Canada. (29)
      - Native peoples > Legal status, laws, etc. > Canada. (89)
      - North America Colonization (103)
      - Postcolonialism (140)

    - Relevant keywords include:
      - Doctrine of Discovery (122)
      - Terra Nullius (47)

  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Academic Search Complete* (EBSCO)

- *MLA International Bibliography* (EBSCO)
- *America: History & Life* (EBSCO)
- *SocIndex with Full Text* (EBSCO)
- *CBCA (Canadian Business & Current Affairs)* (Proquest)
- *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
- *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
- *CHASS/CANSIM* - Statistics Canada's socioeconomic database

- Journal Subscriptions
  - The Library provides access to a number of key journals in this field. See spreadsheet.
- Streaming Video
  - NFB Campus (National Film Board)
  - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
- Curio (CBC news and documentary videos)
  - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos

- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:
See IKE-1040 New Course Proposal form where the new resources are detailed.

NEW COURSE PROPOSAL

Motion #65

Does the budget allocation for library resources in this proposal meet the requirement?
A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #66

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 2110 Métis Culture, History and Governance

Course Number and Title	IKE 2110 Métis Culture, History and Governance
Description	This course will provide an overview of Métis identity, culture, Language(s), history and governance. Métis ethnogenesis will be explored to build awareness that Métis does not simply mean, "mixed." Grounded in authentic teachings, students will be immersed in perspectives and understandings unique to Métis. Academic research will support accurate, authentic narratives of historical and contemporary issues that have shaped who Métis are, the distinct history and resilience as a people and a Nation.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Elective option for IKERAS minor

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Resources Required: Existing Instructor

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #66

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 2110 Métis Culture, History and Governance

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Métis (283)
      - Métis > Canada > Cultural assimilation. (2)
      - Métis > Ethnic identity. (38)
      - Métis > History. (132)
      - Métis > Legal status, laws, etc. (25)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	Dec. 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #67

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 2220 Beadwork: The symbols of Indigenous Cultural Resilience and Value be approved as proposed.

Course Number and Title	IKE 2220 Beadwork: The Symbols of Indigenous Cultural Resilience and Value
Description	This course will explore how beadwork symbolized Indigenous perseverance in the aftermath of colonization and the residential school system. The course will examine the importance of beadwork both before and after European contact. The course will investigate how beading plays a vital role in restoring cultural ties and spiritual belief and how it continues to be significant in demonstrating Indigenous resiliency as well as highlighting the diverse cultural value of Indigenous peoples. The student will learn beading techniques along with the histories of Mi'kmaq beading and storytelling across Turtle Island.
Cross-Listing	Click here to enter text.
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	Click here to enter text.

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 30

Is there an Enrolment Cap: Yes - 30
This class includes a component that is hands on and experiential and a maximal class size is set to allow desk space and oversight.

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

Authorization ***Date:***

Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

NEW COURSE PROPOSAL — Motion #67

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 2220 Beadwork: The Symbols of Indigenous Cultural Resilience and Value

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Indians of North America (5,278)
      - Indigenous art > Canada (84)
      - Indigenous artists > Canada (13)
      - Indian beadwork (6)
      - Indian beadwork > Canada. (2)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	Dec. 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #68

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 2230 The Mi'Kmaq of Eastern Canada be approved as proposed.

Course Number and Title	IKE 2230 The Mi'Kmaq of Eastern Canada
Description	This is an ethnological-style course examining traditional Mi'Kmaq culture and how it has evolved historically. It introduces students to L'nu cultural practices about the body, food, traditional medicines, religion, politics, and the natural world.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #68

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 2230 The Mi'Kmaq of Eastern Canada

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Indians of North America (5,278)
      - Mi'kmaq (256)
      - Mi'kmaq (people) > Culture. (8)
      - Mi'kmaq (people) > Fishing (13)
      - Mi'kmaq (people) > Food > Prince Edward Island. (3)
      - Mi'kmaq (people) > History. (56)
      - Mi'kmaq (people) > Land tenure. (8)
      - Mi'kmaq (people) > Medicine. (3)
      - Mi'kmaq (people) > Religion (10)
      - Mi'kmaq language (14)
      - Micmac Language (23) (We are working to update this Subject Heading with the proper name)
      - Micmac Indians > Social life and customs. (7)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.

- Streaming Video
  - NFB Campus (National Film Board)
  - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
- Curio (CBC news and documentary videos)
  - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos

- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #69

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 2320 Wabanaki Confederacy be approved as proposed.

Course Number and Title	IKE 2320 Wabanaki Confederacy
Description	This course covers the Tribes of the East Coast of the United States and Canada that formed a political/military alliance to support each other during the French Indian Wars. It situates them in their tribal lands and examines some notable individuals and their accomplishments. Relevant legislation that affects them will be covered.
Cross-Listing	Click here to enter text.
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	Click here to enter text.

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #69

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 2320 Wabanaki'k Confederacy

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Indians of North America (5,278)
      - Abenaki Indians. (15)
      - Mi'kmaq (256)
      - Mi'kmaq (people) > History. (56)
      - Canada > History > French and Indian War, 1755-1763. (27)
      - United States > History > French and Indian War, 1754-1763. (60)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - o NFB Campus (National Film Board)
    - o Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

NEW COURSE PROPOSAL — Motion #69

- Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #70

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3010 Mi'Kmaw Language II be approved as proposed.

Course Number and Title	IKE 3010 Mi'kmaw Language II
Description	This course continues learning from IKE 2010 allowing the student to build on both their vocabulary and understanding both written and oral. This course requires a significant amount of time dedicated to assignments and application of the language.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 2010
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #70

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3010 Mi'kmaw Langauge II

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
    - Indians of North America (5,278)
    - Mi'kmaq language (13)
    - Mi'kmaq language > Dictionaries > English (5)
    - Mi'kmaq (people) > Treaties (9)
    - Treaties > Language (7)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)
    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.

NEW COURSE PROPOSAL Motion #70

- Academic Videos Online
  - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #71

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3056 Indigenous Peoples and Justice be approved as proposed.

Course Number and Title	IKE 3056 Indigenous Peoples and Justice
Description	Students will be introduced to how colonialism perpetuates inequality of Indigenous peoples and results in their over-representation in the criminal justice system, now referred to as 'the new residential schools in contemporary Canadian society' and other unjust systems in Canada. Students will understand the systemic issues that prevent the fair and equitable treatment of Indigenous peoples despite measures that are intended to curb the rise of their incarceration. An examination of social justice and criminological theories will be of benefit to students interested in understanding inequities in larger systems beyond criminal justice, and potential pathways to end this disturbing reality.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 2000, and IKE 2055 OR IKE 2800
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

NEW COURSE PROPOSAL — Motion #71

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3056 Indigenous Peoples and Justice

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Colonialism (1601)
      - Decolonization (522)
      - Decolonization > Study and teaching. (23)
      - Discrimination in criminal justice administration > Canada. (25)
      - Discrimination in criminal justice administration > Canada. > Indigenous Peoples (3)
      - Discrimination in criminal justice administration > Canada. > Native Peoples (3)
      - Indians of North America (5,278)
      - Indigenous peoples > Legal status, laws, etc. > Canada. (92)
      - Indigenous resistance (915)
      - Canada. Indian Act (36)
      - Native peoples > Canada > Government relations. (581)
      - Native peoples > Civil rights > Canada. (29)
      - Native peoples > Legal status, laws, etc. > Canada. (89)
      - Indians of North America > Canada > Treaties (71)
      - Residential schools – Canada (104)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)

- *CHASS/CANSIM* - Statistics Canada's socioeconomic database
- Journal Subscriptions
  - The Library provides access to a number of key journals in this field. See spreadsheet.
- Streaming Video
  - NFB Campus (National Film Board)
  - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
- Curio (CBC news and documentary videos)
  - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos

- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

NEW COURSE PROPOSAL

Motion #71

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #72

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3066 Introduction to Indigenous Research Methodologies be approved as proposed.

Course Number and Title	IKE 3066 Introduction to Indigenous Research Methodologies
Description	Students will be introduced to the foundations of Indigenous Research Methodologies which are grounded in the principles of 'for and by Indigenous Peoples', which emphasizes techniques and methods from traditional Indigenous knowledges and worldviews. Students will understand quantitative and qualitative research methodologies, and important concepts of ownership, control, access, and possession as well as duty to consult. Students will understand that Indigenous research methodologies are a powerful tool for social change as they are relational, inclusive and participatory in nature.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 2000
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

NEW COURSE PROPOSAL — Motion #72

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3066 Introduction to Indigenous Research Methodologies

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Postcolonialism > Research > Methodology. (3)
      - Indigenous peoples > Ecology. (134)
      - Indigenous peoples > Research > Methodology. (23)
      - Qualitative research methods (78)
      - Qualitative research (57)
      - Qualitative research > Canada > Methodology. (1)
      - Quantitative research. (216)
      - Indigenous knowledge (54)
      - Traditional ecological knowledge (39)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Sage Research Methods and Sage Research Foundations*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - o NFB Campus (National Film Board)
    - o Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

NEW COURSE PROPOSAL — Motion #72

- Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #73

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3221 Mi'Kmaq Spiritualities be approved as proposed.

Course Number and Title	IKE 3221 Mi'Kmaq Spiritualities
Description	This course provides insight into L'nu cosmology by examining various Wabanaki'k Creation Stories, along with pan-Indigenous ceremonies, including smudging, fasting, pipe ceremonies, sharing circles, and sweat lodges, powwow drumming and dancing. It will examine hybrid Mi'Kmaq Catholicism and its modern-day manifestations.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #73

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3221 Mi'Kmaq Spiritualities

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Catholic Church > Prayers and devotions > Micmac. (3)
      - Glooscap (8)
      - Indigenous peoples -- Rites and ceremonies (16)
      - Mi'kmaq (256)
      - Mi'kmaq (people) > History. (56)
      - Mi'kmaq (people) > Culture. (8)
      - Mi'kmaq (people) > Land tenure. (8)
      - Mi'kmaq (people) > Medicine. (3)
      - Mi'kmaq (people) > Religion (10)
      - Catholic Church > Prayers and devotions > Micmac. (3)
      - Mi'kmaq language (14)
      - Micmac Indians > Social life and customs. (7)
      - Mi'kmaw mythology > Prince Edward Island > Juvenile literature. (1)
      - Indigenous knowledge (54)
      - Traditional ecological knowledge (39)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video

    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)
    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #74

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3340 Wabanaki Peace & Friendship Treaties be approved as proposed.

Course Number and Title	IKE 3340 Wabanaki Peace & Friendship Treaties
Description	This course examines the chain of treaties commencing in the State of Maine between the Abenaki and English in Massachusetts, moving along the Eastern Seaboard into the Maritimes of Canada, involving Wabanaki Tribes and the British Crown. It will include the preceding conflicts, resolutions, and key players.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50

Is there an Enrolment Cap: No

If there is an enrolment limit, please explain.

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #74

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3340 Wabanaki Peace & Friendship Treaties

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Indians of North America > Canada > Treaties (71)
      - Abenaki Indians > Land tenure > Maine. (2)
      - Mi'kmaq (people) > Land tenure. (8)
      - Mi'kmaq (people) > Treaties (9)
      - Treaties > Language (7)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - o NFB Campus (National Film Board)
    - o Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)
    - o Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos

NEW COURSE PROPOSAL — Motion #74

- Subscription Dependencies (in interdisciplinary packages)
    - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
    - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
    - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
    - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #75

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3350 Storytelling and Wabanaki Legends be approved as proposed.

Course Number and Title	IKE 3350 Storytelling and Wabanaki Legends
Description	Legends and oral traditions provide a deep connection to place and identity. One of the ways that Traditional Ecological Knowledges or Indigenous Territories are passed down is through oral tradition. This course is based on Wabanaki stories and legends about the land and its inhabitants.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #75

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3350 Storytelling and Wabanaki'k Legends

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Glooscap (8)
      - Indians of North America > Folklore. (186)
      - Indigenous knowledge (54)
      - Mi'kmaq (people) > History. (56)
      - Mi'kmaq (people) > Land tenure. (8)
      - Mi'kmaq legends (23)
      - Mi'kmaq (people) > Religion (10)
      - Mi'kmaq language (13)
      - Traditional ecological knowledge (39)
  - o Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Canadiana*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - o NFB Campus (National Film Board)
    - o Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #76

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 3410 Canadian Treaties and Self-Government Agreements be approved as proposed.

Course Number and Title	IKE 3410 Canadian Treaties and Self-Government Agreements
Description	This course is a survey of the Numbered Treaties in Canada, along with the British Columbia (BC) Treaty process and modern-day Treaties, such as Self-Government Agreements.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 2000
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50

Is there an Enrolment Cap: No

If there is an enrolment limit, please explain.

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #76

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 3410 Canadian Treaties and Self Government Agreements

Existing resources:
Collections - Holdings, Subscriptions, Other

Books

Relevant subject headings include:

- Indigenous peoples > Canada > Government relations. (128)
- Indigenous peoples > Land tenure > Canada. (29)
- Indigenous peoples -- Canada – Treaties (7)
- Indigenous peoples > Canada > Treaties > History. (1)
- Mi'kmaq (people) > Land tenure. (8)
- Nisga'a Nation. Treaties, etc. 1999 April 27. (4)

- Databases
  - *American Indian Religious Traditions*
  - *Bibliography of Native North Americans*
  - *Encyclopedia of Native-American History*
  - *HeinOnline Canadian Core*
  - *Indigenous Peoples of North America*
  - *Informit Indigenous Collection*
  - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
  - *Canadiana*
  - *Academic Search Complete* (EBSCO)
  - *MLA International Bibliography* (EBSCO)
  - *America: History & Life* (EBSCO)
  - *SocIndex with Full Text* (EBSCO)
  - *CBCA (Canadian Business & Current Affairs)* (Proquest)
  - *DesLibris Canadian Electronic Library* (thousands of ebooks, tens of thousands of public documents)
  - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
  - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
- Journal Subscriptions
  - The Library provides access to a number of key journals in this field. See spreadsheet.
- Streaming Video
  - NFB Campus (National Film Board)
  - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
- Curio (CBC news and documentary videos)
- Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)

- The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
- The Library subscribes to interdisciplinary ebook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.

o Special Collections
- Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.

o Physical Space in Library (other than holdings, explain)

o Library Administrative/Research Support
- Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	Jan. 5, 2023
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #77

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 4520 Islands of Indigeneity be approved as proposed.

Course Number and Title	IKE 4520 Islands of Indigeneity
Description	Islands have traditionally been represented in a multitude of ways, for instance as warm-water tourism destinations, quiet retreats from the mainland and nature reserves, amongst others. This course examines islandness utilizing Indigenous worldviews.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #77

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 4520 Islands of Indigeneity

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Indians of North America (5,278)
      - Islands. (1127)
      - Indian reservations > Prince Edward Island > Lennox Island.
      - Lennox Island (14)
      - Mi'kmaw mythology > Prince Edward Island > Juvenile literature. (1)
      - Indigenous knowledge (54)
      - Traditional ecological knowledge (39)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

NEW COURSE PROPOSAL — Motion #77

    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #78

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 4096 Applied Indigenous Justice be approved as proposed.

Course Number and Title	IKE 4096 Applied Indigenous Justice
Description	Students will study various justice systems where Indigenous justice is being applied such as the Courts, federal and provincial corrections, and sentencing circles. This course will see students gain valuable and practical analytical and writing skills which can be applied to future careers in a variety of settings in ways that respond to the TRC Calls to Action and advance reconciliation in Canada. The format will be a combination of lecture and workshops.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 3056
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 50
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #78

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 4096 Applied Indigenous Justice

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*
Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Canada. Indian Act (36)
      - Colonialism (1601)
      - Decolonization (522)
      - Decolonization > Study and teaching. (23)
      - Discrimination in criminal justice administration > Canada. (25)
      - Discrimination in criminal justice administration > Canada. > Indigenous Peoples (3)
      - Discrimination in criminal justice administration > Canada. > Native Peoples (3)
      - Indians of North America (5,278)
      - Indians of North America > Canada > Treaties (71)
      - Indigenous environmental justice (5)
      - Indigenous peoples > Legal status, laws, etc. > Canada. (92)
      - Indigenous peoples > Canada > Social life and customs.
      - Indigenous resistance (915)
      - Native peoples > Canada > Government relations. (581)
      - Native peoples > Civil rights > Canada. (29)
      - Native peoples > Legal status, laws, etc. > Canada. (89)
      - Residential schools – Canada (104)
      - Sentencing circles (Native peoples) (2)
      - Truth and Reconciliation Commission of Canada. (33)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)

- *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
- *CHASS/CANSIM* - Statistics Canada's socioeconomic database

- Journal Subscriptions
  - The Library provides access to a number of key journals in this field. See spreadsheet.
- Streaming Video
  - NFB Campus (National Film Board)
  - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
- Curio (CBC news and documentary videos)
  - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos

- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:
See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?
A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

NEW COURSE PROPOSAL

Motion #78

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL

Motion #79

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 4090 Indigenous Special Topics be approved as proposed.

Course Number and Title	IKE 4090 Indigenous Special Topics
Description	Students will review the historical and contemporary developments of Indigenous issues in Canada. Students will undertake a thorough and independent examination of a topic of interest with an opportunity to present their research findings to stakeholders in ways that respond to the TRC Calls to Action and advance reconciliation in Canada.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040, One IKE 2000 level course and two IKE 3000 level courses
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 20
If there is an enrolment limit, please explain.

Is there an Enrolment Cap: No

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No
If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #79

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 4090 Indigenous Special Topics

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Canada. Indian Act (36)
      - Colonialism (1601)
      - Colonization (96)
      - Decolonization (522)
      - Decolonization > Study and teaching. (23)
      - Colonialism (1601)
      - Culturally relevant pedagogy (122)
      - Discrimination in criminal justice administration > Canada. (25)
      - Discrimination in criminal justice administration > Canada. > Indigenous Peoples (3)
      - Discrimination in criminal justice administration > Canada. > Native Peoples (3)
      - Indians of North America (5,278)
      - Indians of North America > Canada > Treaties (71)
      - Indigenous environmental justice (5)
      - Indigenous peoples Education (240)
      - Indigenous peoples > Legal status, laws, etc. > Canada. (92)
      - Indigenous peoples > Canada > Social life and customs.
      - Indigenous resistance (915)
      - Native peoples > Canada > Government relations. (581)
      - Native peoples > Civil rights > Canada. (29)
      - Native peoples > Legal status, laws, etc. > Canada. (89)
      - Residential schools – Canada (104)
      - Truth and Reconciliation Commission of Canada. (33)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *ERIC*
    - *Education Research Complete*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)

- *America: History & Life* (EBSCO)
- *SocIndex with Full Text* (EBSCO)
- *CBCA (Canadian Business & Current Affairs)* (Proquest)
- *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
- *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
- *CHASS/CANSIM* - Statistics Canada's socioeconomic database

- Journal Subscriptions
  - The Library provides access to a number of key journals in this field. See spreadsheet.
- Streaming Video
  - NFB Campus (National Film Board)
  - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
- Curio (CBC news and documentary videos)
  - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
- Academic Videos Online
  - Over 150 videos

- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:
See IKE-1040 New Course Proposal form where the new resources are detailed.

NEW COURSE PROPOSAL

Motion #79

Does the budget allocation for library resources in this proposal meet the requirement?
A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #80

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 4210 Gijituaqasin: On the Land be approved as proposed.

Course Number and Title	IKE 4210 Gijituaqasin: On the Land
Description	This is an experiential land-based field course connecting students to Mother Earth utilizing a two-eyed seeing approach. Elders and Knowledge-keepers will provide guidance to the students during this intensive course.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 10

Is there an Enrolment Cap: Yes

If there is an enrolment limit, please explain. This course is by interview and acceptance by the course director. This is a senior course for senior students who wish to have an on-land experience to Indigenous ways of knowing and doing.

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: SUMMER 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: Student Transportation

In offering this course will UPEI require facilities or staff at other institutions: No

If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #80

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 4210 Gijituaqasin: On the Land

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Experiential learning (194)
      - Mi'kmaq (people) > Religion (10)
      - Indigenous knowledge (54)
      - Traditional ecological knowledge (39)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *ERIC*
    - *Education Research Complete*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)
    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.

NEW COURSE PROPOSAL Motion #80

- Academic Videos Online
  - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:

See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?

A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

NEW COURSE PROPOSAL — Motion #81

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 4240 Ika'taquey: Indigenous Gardening & Meditative Practices be approved as proposed.

Course Number and Title	IKE 4240 Ika'taquey: Indigenous Gardening & Meditative Practices
Description	Being mindful on the land provides a deep connection to Mother Earth. This is a hands-on experiential course where students learn and practice being present and mindful while growing a summer Mi'Kmaq garden.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 1040 and permission of the instructor
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 15

Is there an Enrolment Cap: Yes - 15

If there is an enrolment limit, please explain. This is a course shared with psychology department for students that have been interviewed prior to acceptance in the course.

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

NEW COURSE PROPOSAL — Motion #81

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 4240 Ika'taquey: Indigenous Gardening & Medicative Practices

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Experiential learning (194)
      - Food > North America > Religious aspects. (3)
      - Indians of North America
      - Indians of North America Food. (36)
      - Indigenous knowledge (54)
      - Indigenous peoples > Food > Canada > Case studies. (1)
      - Traditional ecological knowledge (39)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this "PEI Collection" now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island's first inhabitants, the Mi'kmaq People. Going forward, the Library's Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi'kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:
See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?
A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

CALENDAR & CURRICULUM CHANGE — Motion #82

Faculty/School: **IKERAS**

Department/Program(s): **Click here to enter text.**

MOTION: That a new course IKE 4410 Indigenous Territories Use-and-Occupancy Research Methods be approved as proposed.

Course Number and Title	IKE 4410 Indigenous Territories Use-and-Occupancy Research Methods
Description	This course utilizes Indigenous Methodologies and Research Methods to design and collect data for projects based on a land use-and-occupancy method called Biographic Mapping. The course has a learning-experiential component in the field and instructors will coordinate the course with Elders and Knowledge-Keepers from the region.
Cross-Listing	
Prerequisite/Co-Requisite	IKE 3066
Credit(s)	3
Notation	

This is: An Elective Course

Grade Mode: Numeric (Standard)

Anticipated Enrolment: 15

Is there an Enrolment Cap: Yes - 15

If there is an enrolment limit, please explain. This is an experiential land-based course that needs to be small to assimilate the information into maps that can be shared within the community.

Rationale for New Course: Expansion of IKERAS minor elective options

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Course elective

Resources Required: None

In offering this course will UPEI require facilities or staff at other institutions: No

If yes, please explain.

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: IKERAS	February 12, 2023
Faculty Dean's Approval: Gary Evans	February 12, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

CALENDAR & CURRICULUM CHANGE — Motion #82

LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

IKE 4410 Indigenous Territories Use-and-Occupancy Research Methods

Library Resource Requirements *(to be completed by the liaison and/or collections librarian)*

Existing resources:

- Collections - Holdings, Subscriptions, Other
  - Books
    - Relevant subject headings include:
      - Indigenous knowledge (54)
      - Indigenous peoples > Ecology. (134)
      - Indigenous peoples > Research > Methodology. (23)
      - Postcolonialism > Research > Methodology. (3)
      - Qualitative research methods (78)
      - Qualitative research (57)
      - Qualitative research > Canada > Methodology. (1)
      - Quantitative research. (216)
      - Traditional ecological knowledge (39)
  - Databases
    - *American Indian Religious Traditions*
    - *Bibliography of Native North Americans*
    - *Encyclopedia of Native-American History*
    - *HeinOnline Canadian Core*
    - *Indigenous Peoples of North America*
    - *Informit Indigenous Collection*
    - *Native peoples of the World: An Encyclopedia of Groups, Cultures, and Contemporary Issues*
    - *Academic Search Complete* (EBSCO)
    - *MLA International Bibliography* (EBSCO)
    - *America: History & Life* (EBSCO)
    - *SocIndex with Full Text* (EBSCO)
    - *CBCA (Canadian Business & Current Affairs)* (Proquest)
    - *DesLibris Canadian Electronic Library* (thousands of eBooks, tens of thousands of public documents)
    - *Frontier Life: Borderlands, Settlement & Colonial Encounters* (Adam Matthew Digital, historical archive)
    - *CHASS/CANSIM* - Statistics Canada's socioeconomic database
  - Journal Subscriptions
    - The Library provides access to a number of key journals in this field. See spreadsheet.
  - Streaming Video
    - NFB Campus (National Film Board)
    - Includes Indigenous People in Canada (First Nations and Metis) (41 videos), Indigenous Peoples in Canada (Inuit) (29 videos), and more
  - Curio (CBC news and documentary videos)

    - Provides access to theme collections including Residential Schools (38 videos), Truth and Reconciliation in Canada (16 videos), Indigenous Youth (22 videos), Indigenous Language Revitalization (25 videos), and more.
  - Academic Videos Online
    - Over 150 videos
- Subscription Dependencies (in interdisciplinary packages)
  - The Library subscribes to interdisciplinary journal packages with Elsevier (ScienceDirect), Wiley, Springer, Oxford, Sage, Taylor and Francis, and Project Muse.
  - The Library subscribes to interdisciplinary eBook packages with Ebsco, Proquest, JStor, Wiley, Cambridge, Elsevier, and Project Muse.
- Special Collections
  - Since the early 1970s, the Library has worked to acquire, preserve, and make available all published works (books, periodicals, reports, etc.) generated on or otherwise connected to Epekwitk / Île Saint-Jean / Prince Edward Island; this “PEI Collection” now encompasses ~12,000 titles, and continues to grow steadily, with an active acquisitions mandate. This mandate includes material relating to the Island’s first inhabitants, the Mi’kmaq People. Going forward, the Library’s Special Collections unit is committed to supporting IKERAS faculty, knowledge keepers, and learners through the continued acquisition of publications and other learning / research materials relating to the Mi’kmaq, and other Indigenous peoples in the Atlantic region.
- Physical Space in Library (other than holdings, explain)
- Library Administrative/Research Support
  - Liaison Librarians provide reference and instruction support to both students and faculty as needed. They monitor publication lists for new titles in the subject area and purchase appropriate titles as existing budgetary resources permit.

New resources needed to support this proposal:
See IKE-1040 New Course Proposal form where the new resources are detailed.

Does the budget allocation for library resources in this proposal meet the requirement?
A budget for the entire IKERAS program was included in the IKE-1040 course package submitted to APCC and Senate in 2022. Ongoing annual costs for the program are $11,500 which includes $6,300 for databases/subscriptions and $5,000 for books/ebooks along with an annual increase of 3% to cover annual vendor increases. Additional resources were suggested to support the program.

Date Received by Liaison/Collections Librarian	December 19, 2022
Name of Librarian to be Contacted for Questions	Courtney Matthews
Approved by University Librarian or Designate - Name	Donald Moses
Date Approved by UL or Designate	January 27, 2023

SUMMARY OF FACULTY OF SCIENCE MOTION #'S 83-88

Foods and Nutrition	
Dietetic Option	Calendar Entry Change
Integrated Dietetic Internship Program	Calendar Entry Change
Biology	
Major/Honours Program	Calendar Entry Change
Major	Calendar Entry Change
Chemistry	
Biotechnology 2020	Prerequisite Change
Biotechnology 4820	Course Description Change

CALENDAR & CURRICULUM CHANGE — Motion #83

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Applied Human Sciences**

MOTION: That the changes to the calendar entry for the Dietetic Option be approved as proposed.

DIETETIC OPTION In addition to the courses required for the Foods and Nutrition major, students interested in applying for dietetic internship must take Foods and Nutrition 3210 (Foodservice Systems Management), Foods and Nutrition 3710 (Lifespan Nutrition), Foods and Nutrition 3830 (Professional Practice in Dietetics), Foods and Nutrition 4220 (Quantity Food Production), Foods and Nutrition 4310 (Evidence-Based Practice in the Health Sciences), and Foods and Nutrition 4610 (Clinical Nutrition II). **COURSE SEQUENCE: DIETETICS** Following is the usual sequence for completion of courses: **First Year** Foods and Nutrition 1010 – Concepts and Controversies in Nutrition Biology 1220 – Human Physiology Biology 1310 – Introduction to Cell and Molecular Biology Chemistry 1110 – General Chemistry I Chemistry 1120 – General Chemistry II One of UPEI 1010, 1020 or 1030 Math 1110 – Finite Mathematics **OR** Math 1120 – Calculus for the Managerial, Social and Life Sciences Two 3 semester hours Social Science **Second Year** Foods and Nutrition 2110 – Introductory Nutrition I Foods and Nutrition 2120 – Introductory Nutrition II Foods and Nutrition 2230 – Determinants of Dietary Behaviour Foods and Nutrition 2610 – Communications Foods and Nutrition 2810 – Introductory Foods Biology 2060 – Microbiology Chemistry 2430 – Organic Chemistry for the Life	**DIETETIC OPTION** In addition to the courses required for the Foods and Nutrition major, students interested in applying for dietetic internship (either UPEI Integrated Dietetic Internship or a post graduate internship) must take Foods and Nutrition 3210 (Foodservice Systems Management), Foods and Nutrition 3710 (Lifespan Nutrition), Foods and Nutrition 3830 (Professional Practice in Dietetics), Foods and Nutrition 4220 (Quantity Food Production), Foods and Nutrition 4310 (Evidence-Based Practice in the Health Sciences), and Foods and Nutrition 4610 (Clinical Nutrition II). **COURSE SEQUENCE: DIETETICS** Following is the usual sequence for completion of courses: **First Year** Foods and Nutrition 1010 – Concepts and Controversies in Nutrition Biology 1220 – Human Physiology Biology 1310 – Introduction to Cell and Molecular Biology Chemistry 1110 – General Chemistry I Chemistry 1120 – General Chemistry II One of UPEI 1010, 1020 or 1030 Math 1110 – Finite Mathematics **OR** Math 1120 – Calculus for the Managerial, Social and Life Sciences IKE 1040- Indigenous Teachings of Turtle Island Two 3 semester hours Social Science **Second Year** Foods and Nutrition 2110 – Introductory Nutrition I Foods and Nutrition 2120 – Introductory Nutrition II Foods and Nutrition 2230 – Determinants of Dietary Behaviour Foods and Nutrition 2610 – Communications Foods and Nutrition 2810 – Introductory Foods Foods and Nutrition 2820- Food Systems: Food Production and Food Processing

CALENDAR & CURRICULUM CHANGE — Motion #83

Sciences Statistics 1210 – Introductory Statistics Two free electives **Third Year** Foods and Nutrition 3020 – Advanced Foods Foods and Nutrition 3210 – Foodservice Systems Management Foods and Nutrition 3310 – Introduction to Research Methods Foods and Nutrition 3510 – Nutritional Assessment Foods and Nutrition 3520 – Clinical Nutrition I Foods and Nutrition 3820 – Program Planning & Evaluation Foods and Nutrition 3830 – Professional Practice in Dietetics Chemistry 3530 – Biochemistry Two free electives **Fourth Year** Foods and Nutrition 3710 – Lifespan Nutrition Foods and Nutrition 4120 – Human Metabolism Foods and Nutrition 4220 – Quantity Food Production Foods and Nutrition 4310 – Evidence-Based Practice in the Health Sciences Foods and Nutrition 4340 – Community Nutrition Foods and Nutrition 4610 – Clinical Nutrition II Four free electives	Biology 2060 – Microbiology Chemistry 2430 – Organic Chemistry for the Life Sciences Statistics 1210 – Introductory Statistics ~~Two~~ One free electives~~s~~ **Third Year** Foods and Nutrition 3020 – Advanced Foods Foods and Nutrition 3210 – Foodservice Systems Management Foods and Nutrition 3310 – Introduction to Research Methods Foods and Nutrition 3510 – Nutritional Assessment Foods and Nutrition 3520 – Clinical Nutrition I Foods and Nutrition 3820 – Program Planning & Evaluation Foods and Nutrition 3830 – Professional Practice in Dietetics Chemistry 3530 – Biochemistry Business 1710 – Organizational Behaviour ~~Two~~ One free electives~~s~~ **Fourth Year** Foods and Nutrition 3710 – Lifespan Nutrition Foods and Nutrition 4120 – Human Metabolism Foods and Nutrition 4220 – Quantity Food Production Foods and Nutrition 4310 – Evidence-Based Practice in the Health Sciences Foods and Nutrition 4340 – Community Nutrition Foods and Nutrition 4610 – Clinical Nutrition II Four free electives

Rationale for Change: The course sequence includes the new required course IKE 1040 and a new required FN course, FN 2820.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Rebecca Reed Jones	January 31, 2023
Faculty/School Approval: Science Council	February 1, 2023
Faculty Dean's Approval: Nola Etkin	February 1, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

CALENDAR & CURRICULUM CHANGE — Motion #84

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Applied Human Sciences**

MOTION: To have changes to the calendar entry for the Integrated Dietetic Internship Program approved as proposed.

Integrated Dietetic Internship Program This dietetic education program is an accredited program recognized by the Partnership for Dietetic Education and Practice (PDEP). Students majoring in Foods and Nutrition may apply for admission to the optional Integrated Dietetic Internship Program. The integrated approach to professional training enables students to build upon and apply theoretical knowledge gained from their academic program. On successful completion of the Program, students will have fulfilled the competencies required to reach entry-level professional dietetic competence as determined by the PDEP, and will be eligible to apply for admission to the dietetics profession. Internship levels and their results will be recorded on students' transcripts. Upon successful completion of both the accredited degree program and the required internship levels, students will be granted a university certificate attesting to their successful completion of the Integrated Dietetic Internship Program. **ADMISSION REQUIREMENTS** All students majoring in Foods and Nutrition who have achieved a minimum cumulative GPA of 3.0 with no Foods and Nutrition course below a GPA of 2.7, and have completed the following required courses will be eligible to apply for the program: Foods & Nutrition 1010 – Concepts and Controversies in Nutrition Foods & Nutrition 2110 – Introductory Nutrition I Foods & Nutrition 2120 – Introductory Nutrition II Foods & Nutrition 2230 – Determinants of Dietary Behaviour	**Integrated Dietetic Internship Program** This dietetic education program is an accredited program ~~recognized by the Partnership for~~ which meets current standards for d~~D~~ietetic e~~E~~ducation and p~~P~~ractice ~~(PDEP).~~ Students majoring in Foods and Nutrition may apply for admission to the optional Integrated Dietetic Internship Program. The integrated approach to professional training enables students to build upon and apply theoretical knowledge gained from their academic program. On successful completion of the Program, students will have fulfilled the competencies required to reach entry-level professional dietetic competence ~~as determined by the PDEP~~, and will be eligible to apply for admission to the dietetics profession. Internship courses ~~levels~~ and their results will be recorded on students' transcripts. Upon successful completion of both the accredited degree program and the required internship courses ~~levels~~, students will be granted ~~a university certificate attesting to their successful completion of the Integrated Dietetic Internship Program.~~ their Bachelor of Science degree majoring in Foods and Nutrition with Integrated Dietetic Internship. **ADMISSION REQUIREMENTS** All students majoring in Foods and Nutrition who have achieved a minimum cumulative GPA of 3.0 with no Foods and Nutrition course below a GPA of 2.7, and have completed the following required courses will be eligible to apply for the program: Foods & Nutrition 1010 – Concepts and Controversies in Nutrition Foods & Nutrition 2110 – Introductory Nutrition I Foods & Nutrition 2120 – Introductory Nutrition II

CALENDAR & CURRICULUM CHANGE — Motion #84

Foods & Nutrition 2810 – Introductory Foods Foods & Nutrition 3210 – Food Service Management Foods & Nutrition 3310 – Research Methods Foods & Nutrition 3510 – Nutritional Assessment Foods & Nutrition 3830 – Professional Practice in Dietetics Chemistry 1110 – General Chemistry I Chemistry 1120 – General Chemistry II Chemistry 2430 – Organic Chemistry Biology 1220 – Human Physiology Biology 1310 – Introduction to Cell and Molecular Biology	Foods & Nutrition 2230 – Determinants of Dietary Behaviour Foods & Nutrition 2810 – Introductory Foods Foods & Nutrition 2820 – Food Systems-Food Production and Processing Foods & Nutrition 3210 – Food Service Management Foods & Nutrition 3310 – Research Methods Foods & Nutrition 3510 – Nutritional Assessment Foods & Nutrition 3830 – Professional Practice in Dietetics Chemistry 1110 – General Chemistry I Chemistry 1120 – General Chemistry II Chemistry 2430 – Organic Chemistry Biology 1220 – Human Physiology Biology 2060 – Microbiology Biology 1310 – Introduction to Cell and Molecular Biology
Interested candidates are encouraged to consult the Director of Internship early in their program to discuss admission and course scheduling. Students interested in pursuing this option are also encouraged to seek relevant paid or unpaid work experience in the summer preceding application. A formal application for admission to the Integrated Dietetic Internship Program is required. Application forms are available from the department.	Interested candidates are encouraged to consult the Director of the Foods & Nutrition Program ~~Internship~~ early in their program to discuss admission and course scheduling. Students interested in pursuing this option are also encouraged to seek relevant paid or unpaid work experience in the summer preceding application. A formal application for admission to the Integrated Dietetic Internship Program is required. Application forms are available from the Professional Practice Coordinator ~~department~~.
A selection panel will determine student admissibility based upon academic performance, paid and unpaid work experience, motivation and personal suitability.	A selection panel will determine student admissibility based upon academic performance, work ~~paid~~ and volunteer ~~unpaid work~~ experience~~, motivation and personal suitability.~~ as demonstrated in their e-portfolio (including résumé) and the letter of intent. References will also be considered.
Students meeting the admission criteria will be ranked and the top candidates will be interviewed. By the first week of February, the Professional Practice Coordinator Dietetics will notify, in writing, all students interviewed as to the outcome of the process.	Students meeting the admission criteria will be ranked and the top candidates will be interviewed. By the first week of February, the Professional Practice Coordinator ~~Dietetics~~ will notify, in writing, all students interviewed as to the outcome of the process.
Students accepted into the dietetic internship program must show evidence of all immunizations being up to date prior entering the program. As well, each student will be required to show proof of a completed criminal record check prior to the start date.	Students accepted into the dietetic internship program must show evidence of all immunizations being up to date prior entering the program. As well, each student will be required to show proof of a completed criminal record check prior to the start date.

CALENDAR & CURRICULUM CHANGE — Motion #84

CONTINUANCE REQUIREMENTS	**CONTINUANCE REQUIREMENTS**
Once admitted to the program, students must continue in full-time enrolment between internship courses. An academic review of students' performance will take place at the end of each semester. Students are required to maintain a cumulative GPA of 3.0 with no Foods and Nutrition course below a GPA of 2.7. Students who fail to meet these standards or who fail a required course(s) will not be permitted to begin the next internship course until standards are met.	Once admitted to the program, students must continue in full-time enrolment between internship courses. An academic review of students' performance will take place at the end of each semester. Students are required to maintain a cumulative GPA of 3.0 with no Foods and Nutrition course below a GPA of 2.7. Students who fail to meet these standards or who fail a required course(s) will not be permitted to begin the next internship course until standards are met.
Internship students must complete all of the regular requirements for a Bachelor of Science (Foods and Nutrition) degree. Foods and Nutrition 3210 (Food Service Systems Management), Foods and Nutrition 3710 (Lifespan Nutrition), Foods and Nutrition 3830 (Professional Practice in Dietetics), Foods and Nutrition 4220 (Quantity Food Production), Foods and Nutrition 4310 (Evidence Based Practice in the Health Sciences), and Foods and Nutrition 4610 (Clinical Nutrition II) must be included within their degree program.	Internship students must complete all of the regular requirements for a Bachelor of Science (Foods and Nutrition) degree. Foods and Nutrition 3210 (Food Service Systems Management), Foods and Nutrition 3710 (Lifespan Nutrition), Foods and Nutrition 3830 (Professional Practice in Dietetics), Foods and Nutrition 4220 (Quantity Food Production), Foods and Nutrition 4310 (Evidence Based Practice in the Health Sciences), and Foods and Nutrition 4610 (Clinical Nutrition II) must be included within their degree program.
In addition to the above requirements, students must successfully complete three internship courses.	In addition to the above requirements, students must successfully complete three internship courses.
INTERNSHIP SCHEDULE	**INTERNSHIP SCHEDULE**
Students must complete three internship courses in the Integrated Dietetic Internship Program. The first internship course FN-3001 is scheduled in the spring and summer months between the third and fourth academic years. The second and third internship courses FN-4001 and FN-4002 are completed following fourth year.	Students must complete three internship courses in the Integrated Dietetic Internship Program. The first internship course FN-3001 Integrated Dietetic Practice I is scheduled in the spring and summer months between the third and fourth academic years. The second and third internship courses FN-4001 Integrated Dietetic Practice II and FN-4002 Integrated Dietetic Practice III are are completed following fourth year. One of these may count as an elective in fourth year. Dietetic interns are therefore required to complete 126 semester hours.
The first internship course will include a one week professional practice course, followed by an eight week placement, for a total of 9 weeks. This will be followed by second and third internship courses of no less then 26 weeks, for a total of at least 35 weeks. Placements may be extended if an intern has not completed all competencies.	The first internship course will include a one week professional practice course, followed by an eight week placement, for a total of 9 weeks. This will be followed by second and third internship courses of no less than 26 weeks, for a total of at least 35 weeks. Placements may be extended if an intern has not completed all competencies.

Satisfactory fulfilment of the Integrated Dietetic Internship courses requires: 1. A satisfactory evaluation from the Preceptor at the placement site. 2. Completion of the minimum number of required competencies as indicated on the appropriate evaluation form. **WITHDRAWAL CONDITIONS** Students will be required to withdraw from the Integrated Dietetic Internship Program if: 1. They are dismissed from, resign, or fail to achieve the required competencies during the program, or 2. They do not achieve a passing grade in required courses or do not maintain the standards for nutrition courses and overall GPA necessary for continuance in the Integrated Dietetic Internship Program, or 3. They fail to abide by the policies and procedures set out by the Advisory Committee for the Integrated Dietetic Internship Program and/or those of the placement organization. Students who voluntarily withdraw from or who are required to withdraw from the Integrated Dietetic Internship Program may remain in and continue with the regular Foods and Nutrition majors program. **REGISTRATION AND FEES** Students are required to register for all three internship courses (FN-3001, 4001, 4002) according to normal registration procedures. Internship courses will officially be designated on students' transcripts as pass or fail. Students pay for their internship courses as they are taken. Students accepted to the Integrated Dietetic Internship Program are required to pay an Internship Fee (see Calendar section on fees). This amount is to be paid to the Accounting Office prior to the start date for the specified internship course.	Satisfactory fulfilment of the Integrated Dietetic Internship courses requires: 1. A satisfactory evaluation from the Preceptor at the placement site. 2. Completion of the minimum number of required competencies as indicated on the appropriate evaluation form. **WITHDRAWAL CONDITIONS** Students will be required to withdraw from the Integrated Dietetic Internship Program if: 1. They are dismissed from, resign, or fail to achieve the required competencies during the program, or 2. They do not achieve a passing grade in required courses or do not maintain the standards for nutrition courses and overall GPA necessary for continuance in the Integrated Dietetic Internship Program, or 3. They fail to abide by the policies and procedures set out by the Advisory Committee for the Integrated Dietetic Internship Program and/or those of the placement organization. Students who voluntarily withdraw from or who are required to withdraw from the Integrated Dietetic Internship Program may remain in and continue with the regular Foods and Nutrition majors program. **REGISTRATION AND FEES** Students are required to register for all three internship courses (FN-3001, 4001, 4002) according to normal registration procedures. Internship courses will officially be designated on students' transcripts as pass or fail. Students pay for their internship courses as they are taken. <u>Students may take one less elective in their fourth year since FN 3001 counts as an elective.</u> Students accepted to the Integrated Dietetic Internship Program are required to pay an Internship Fee (see Calendar section on fees). This amount is to be paid to the Accounting Office prior to the start date for the specified internship course.

CALENDAR & CURRICULUM CHANGE — Motion #84

Additional information on policies and procedures related to the Integrated Dietetic Internship Program are available from the Department.	Additional information on policies and procedures related to the Integrated Dietetic Internship Program are available from the Department.
Dieticians of Canada Graduate Internship	**~~Dieticians of Canada~~ Graduate Dietetic Internship**
The Foods & Nutrition program is an accredited program recognized by the Partnership for Dietetic Education and Practice (PDEP) and prepares students for eligibility to apply for a graduate internship.	The Foods & Nutrition program is an accredited program ~~recognized by the Partnership for Dietetic Education and Practice (PDEP)~~ and prepares students for eligibility to apply for a graduate internship.
To apply for a position in an accredited graduate dietetic internship program, students must meet the academic requirements established by PDEP and should have a minimum cumulative GPA of 3.0 in their last 30 courses. In addition to the courses required for the Foods and Nutrition major, students interested in applying for a graduate dietetic internship placement must take Foods and Nutrition 3210, Foods and Nutrition 3830, Foods and Nutrition 4220, Foods and Nutrition 4310, and Foods and Nutrition 4610.	To apply for a position in an accredited graduate dietetic internship program, students must meet the academic requirements ~~established by PDEP~~ and should have a minimum cumulative GPA of 3.0 in their last 30 courses. In addition to the courses required for the Foods and Nutrition major, students interested in applying for a graduate dietetic internship placement must take Foods and Nutrition 3210, Foods and Nutrition 3710, Foods and Nutrition 3830, Foods and Nutrition 4220, Foods and Nutrition 4310, and Foods and Nutrition 4610.
Students should consult with the Director of Internship for details and counselling by the end of second year.	Students should consult with the Director of the Foods and Nutrition program ~~Internship~~ for details and counselling by the end of second year.
NOTES REGARDING 1000-LEVEL FAMILY SCIENCE AND FOODS AND NUTRITION	**~~NOTES REGARDING 1000-LEVEL FAMILY SCIENCE AND FOODS AND NUTRITION~~**
Foods and Nutrition 1110 and Family Science 1140 are introductory courses required for, but not restricted to, Foods and Nutrition and Family Science majors. A grade of at least 60% in Foods and Nutrition 1110 and Family Science 1140 is a prerequisite for all Foods and Nutrition and Family Science courses above the 1000 level. However, this course prerequisite may be waived with the permission of the Chair for individual courses.	~~Foods and Nutrition 1110 and Family Science 1140 are introductory courses required for, but not restricted to, Foods and Nutrition and Family Science majors. A grade of at least 60% in Foods and Nutrition 1110 and Family Science 1140 is a prerequisite for all Foods and Nutrition and Family Science courses above the 1000 level. However, this course prerequisite may be waived with the permission of the Chair for individual courses.~~
Foods and Nutrition 1010 is a course designed primarily for non-Foods and Nutrition or Family Science majors who will not be taking advanced courses in Nutrition; however it will be accepted for credit as an elective in the Foods and Nutrition or Family Science majors programs. Credit will NOT be allowed for Foods and Nutrition 1010 if completed after Foods and Nutrition 2110.	~~Foods and Nutrition 1010 is a course designed primarily for non-Foods and Nutrition or Family Science majors who will not be taking advanced courses in Nutrition; however it will be accepted for credit as an elective in the Foods and Nutrition or Family Science majors programs. Credit will NOT be allowed for Foods and Nutrition 1010 if completed after Foods and Nutrition 2110.~~

CALENDAR & CURRICULUM CHANGE — Motion #84

Rationale for Change: There have been changes with regards to the former national accrediting body (PDEP); we have therefore removed reference to this. The integrated internship courses (FN 3001, FN 4001, FN 4002) which are required for dietetic interns, are three credit hours each. One of these courses will replace a three-semester hour elective in fourth year so that interns will take three rather than four electives; the other two courses will result in a total of 126 semester hours of credit for the internship. We have removed "Notes regarding 1000 level FSc and FN courses" because FN 1110 is now in second year (FN 2810) and FSc 1140 no longer exists. Students now take only FN 1010 in first year and it was decided that the 60% minimum is no longer needed. Changes to admissibility reflect current practice.

Effective Term: FALL 2023

Implications for Other Programs: None.

Impact on Students Currently Enrolled: Students who have enrolled for the first time in September 2022 are required to take Foods & Nutrition 2820-Food Systems-Prod/Processing. Students have always been required to take Bio 2060 prior to applying for internship; this was omitted from previous calendar entries. Students entering fourth year integrated dietetic internship will be notified that they can take one less elective in their fourth year. It will not impact students taking the dietetic stream but who are not applying to UPEI's Integrated Dietetic Internship, since they are applying to internships elsewhere and do not enrol in the FN integrated internship courses.

Authorization	***Date:***
Departmental Approval: Rebecca Reed Jones	January 31, 2023
Faculty/School Approval: Science Council	February 1, 2023
Faculty Dean's Approval: Nola Etkin	February 1, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #85

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Biology Department**

MOTION: To approve the changes to the "Suggested Course Sequences" for the Biology Major and Biology Honours program.

SUGGESTED COURSE SEQUENCES **First Year** Introductory Biology (BIO 1310-1320) Introductory Chemistry (CHEM 1110-1120) Calculus (MATH 1120 or 1910) Statistics (STAT 1210) Physics for the Life Sciences (PHYS 1210 and 1220) One of UPEI 1010, 1020, or 1030 Introductory Environmental Studies (ENV 1010) or a human or animal health course (BIO 1020 or 1030) or Electives **Second Year** Biodiversity courses (BIO 2020, 2040, 2060) Cell and Molecular Biology and/or Ecology and/or Genetics (BIO 2210, 2220, 2230, 2240) Organic Chemistry and Environmental Chemistry or Biochemistry (CHEM 2410-2420 or 2430; CHEM 2020; CHEM 3530 or BIO 2250) Nutrition 2210 or Physics 2430. Students interested in a Medical and biological Physics minor should take Physics 2220, Modern Physics for Life Sciences [can also be taken in third year] Electives (to make up 30 hours of credit) **Third Year** Core physiology or evolution (BIO 3260 or 3820) Research Methods and Communications (BIO 3310) Molecular Biology Research Techniques (BIO 3520) or Biomedical Imaging (PHYS 3520) [can also be taken in fourth year] *Biology electives (2000 level or above) as indicated above for your specialization Electives (to make up 30 hours of credit) **Fourth Year** Two Biology electives at 4000 level from the required specialization Electives (to make up 30 hours of credit)	**SUGGESTED COURSE SEQUENCES** **First Year** Introductory Biology (BIO 1310-1320) Introductory Chemistry (CHEM 1110-1120) Calculus (MATH 1120 or 1910) ~~Statistics (STAT 1210)~~ Indigenous Teachings (IKE 1040) Physics for the Life Sciences (PHYS 1210 and 1220) One of UPEI 1010, 1020, or 1030 Introductory Environmental Studies (ENV 1010) or a human or animal health course (BIO 1020 or 1030) or Electives **Second Year** Biodiversity courses (BIO 2020, 2040, 2060) Cell and Molecular Biology and/or Ecology and/or Genetics (BIO 2210, 2220, 2230, 2240) Organic Chemistry and Environmental Chemistry or Biochemistry (CHEM 2410-2420 or 2430; CHEM 2020; CHEM 3530 or BIO 2250) Nutrition 2210 or Physics 2430. Statistics (STAT 1210) Students interested in a Medical and biological Physics minor should take Physics 2220, Modern Physics for Life Sciences [can also be taken in third year] Electives (to make up 30 hours of credit) **Third Year** Core physiology or evolution (BIO 3260 or 3820) Research Methods and Communications (BIO 3310) Molecular Biology Research Techniques (BIO 3520) or Biomedical Imaging (PHYS 3520) [can also be taken in fourth year] *Biology electives (2000 level or above) as indicated above for your specialization Electives (to make up 30 hours of credit) **Fourth Year** Two Biology electives at 4000 level from the required specialization Electives (to make up 30 hours of credit)

CALENDAR & CURRICULUM CHANGE — Motion #85

Rationale for Change: Relocation of Statistics to Year 2 of suggested list of courses as a result of the added IKE graduation requirement.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Christian Lacroix, Chair, Biology Dept	January 27, 2023
Faculty/School Approval: Science Council	February 1, 2023
Faculty Dean's Approval: Nola Etkin	February 1, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #86

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Biology Department**

MOTION: To approve the calendar entry change for the Biology Major "Required Courses from Other Departments" be approved as proposed.

REQUIRED COURSES FROM OTHER DEPARTMENTS One of UPEI 1010, 1020, or 1030; AND IKE 1040; AND One Writing Intensive Course **Chemistry:** Chemistry 1110 and 1120 Chemistry 2410-2420 or Chemistry 2430 (credit will not be given for both Chemistry 2430 and Chemistry 2410 or 2420) Chemistry 3530 or Biology 2250 is required for the General Stream and Life Sciences; Chemistry 3530 or 2020 is required for Environmental Biology **Physics:** Physics 1210 (or 1110) and Physics 1220 (or 1120) **Mathematics and Statistics:** Math 1120 or Math 1910 Statistics 1210 Note: Some students may wish to take upper level Mathematics, Chemistry, or Physics courses for which Mathematics 1910-1920 is required: therefore Mathematics 1910-1920 may be taken in place of Mathematics 1120 but the statistics requirement of Statistics 1210 remains. Credit will not be given for both Mathematics 1120 and Mathematics 1910. **Other electives:** The remaining number of semester hours required to complete the requirements for the Biology major (a total of 120 semester hours) will be made up from courses selected by the students. Note: Please see Academic Regulation 14(3): Application of Certain Professional Courses.	**REQUIRED COURSES FROM OTHER DEPARTMENTS** One of UPEI 1010, 1020, or 1030; AND IKE 1040; AND One Writing Intensive Course **Chemistry:** Chemistry 1110 and 1120 Chemistry 2410-2420 or Chemistry 2430 (credit will not be given for both Chemistry 2430 and Chemistry 2410 or 2420) Chemistry 3530 or Biology 2250 is required for the General Stream and Life Sciences; Chemistry 3530 or Chemistry 2020 or Biology 2250 is required for Environmental Biology (credit will not be given for both Chemistry 3530 and Bio 2250) **Physics:** Physics 1210 (or 1110) and Physics 1220 (or 1120) **Mathematics and Statistics:** Math 1120 or Math 1910 Statistics 1210 Note: Some students may wish to take upper level Mathematics, Chemistry, or Physics courses for which Mathematics 1910-1920 is required: therefore Mathematics 1910-1920 may be taken in place of Mathematics 1120 but the statistics requirement of Statistics 1210 remains. Credit will not be given for both Mathematics 1120 and Mathematics 1910. **Other electives:** The remaining number of semester hours required to complete the requirements for the Biology major (a total of 120 semester hours) will be made up from courses selected by the students. Note: Please see Academic Regulation 14(3): Application of Certain Professional Courses.

CALENDAR & CURRICULUM CHANGE — Motion #86

Rationale for Change: The department wants to note specifically that students cannot get credit for both Chem 3530 and 2250; this modification also provides students in all 3 biology streams with more flexibility when choosing their Biochemistry requirement.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: Will provide more flexibility in course selection.

Authorization	***Date:***
Departmental Approval: Christian Lacroix, Chair, Biology Dept	January 27, 2023
Faculty/School Approval: Science Council	February 1, 2023
Faculty Dean's Approval: Nola Etkin	February 1, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #87

Revision is for a: **Pre-requisite Addition/Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Department of Chemistry**

MOTION: To approve the removal of the prerequisite for BIOT 2020 Case Studies in Biotechnology as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
BIOT 2020 CASE STUDIES IN BIOTECHNOLOGY This course develops critical thinking around research problems in Biotechnology through a series of case studies. Students will examine and solve research problems in biotechnology. Material for the case studies will be drawn from biotechnology industries generically and from local industries, increasing in complexity as the semester progresses. Students will build competencies in Biotechnology methods and techniques, develop the ability to see alternative approaches, and develop problem solving and critical thinking skills. PREREQUISITE: BIOT 1020 – Must be taken either prior to or at the same time as this course Three lecture hours per week	BIOT 2020 CASE STUDIES IN BIOTECHNOLOGY This course develops critical thinking around research problems in Biotechnology through a series of case studies. Students will examine and solve research problems in biotechnology. Material for the case studies will be drawn from biotechnology industries generically and from local industries, increasing in complexity as the semester progresses. Students will build competencies in Biotechnology methods and techniques, develop the ability to see alternative approaches, and develop problem solving and critical thinking skills. ~~PREREQUISITE: BIOT 1020 – Must be taken either prior to or at the same time as this course~~ Three lecture hours per week

Rationale for Change: To remove the prerequisite to allow BIOT 1020 and BIOT 2020 to be taken in any order.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Barry Linkletter	January 30, 2023
Faculty/School Approval: Science Council	February 1, 2023
Faculty Dean's Approval: Nola Etkin	February 1, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

CALENDAR & CURRICULUM CHANGE — Motion #88

Revision is for a: **Course Description Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Department of Chemistry**

MOTION: To approve the course description change for BIOT 4820 Experiential Learning Project in Biotechnology as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
BIOT 4820 EXPERIENTIAL LEARNING PROJECT IN BIOTECHNOLOGY This practical course offers students the opportunity to apply their knowledge and skills to working on and researching a problem in biotechnology. Students will work under the supervision of an industry mentor or/and a faculty member with a connection to local industry. Students are required to write a report describing the work and give an oral presentation on the work where academic and industry experts will be present. PREREQUISITE: BIOT 2020 Note: Minimum six hours per week	BIOT 4820 EXPERIENTIAL LEARNING PROJECT IN BIOTECHNOLOGY This practical course offers students the opportunity to apply their knowledge and skills to working on and researching a problem in biotechnology. Students will work under the supervision of an industry mentor or/and a faculty member with a connection to local industry. Students are required to write a report describing the work and give an oral presentation on the work where academic and industry experts will be present. Support of an industry mentor or/and a faculty member must be obtained prior to registering for this course. Students are advised to contact the chair at least two months in advance. PREREQUISITE: BIOT 2020 and permission of the instructor. Note: Minimum six hours per week

Rationale for Change: To better inform students of the need to arrange for the industry position ahead of enrolling in the course.

Effective Term: FALL 2023

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: Barry Linkletter	January 30, 2023
Faculty/School Approval: Science Council	February 1, 2023
Faculty Dean's Approval: Nola Etkin	February 1, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	March 22, 2023

Form Version: January 2022

REGISTRAR'S OFFICE SUMMARY OF MOTION #'S 89-90

Academic Regulation #17	Calendar Entry Change
Terminology/Definitions	Calendar Entry Change

CALENDAR & CURRICULUM CHANGE — Motion #89

Revision is for a: **Academic Regulation Change**

Faculty/School/Department: **Registrar's Office**

Department/Program(s)/Academic Regulations: **Academic Regulation 17**

MOTION: To revise Academic Regulation #17 Academic Standing, as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
17. Academic Standing At the end of second academic semester, students are automatically assigned one of the following standings based on academic performance: Good Standing Academic Probation Academic Suspension **Definitions:** For the purposes of this policy, "Academic Year" is defined as September 1 to August 31 **Academic Standing** Academic standing is determined on the basis of a cumulative grade point average (CGPA), defined in Academic Regulation 10, that is the numerical average of grades earned in all UPEI courses for all semesters completed*. Students are expected to meet the necessary minimum standards for performance	**17. Academic Standing** ~~At the end of second academic semester, students are automatically assigned one of the following standings based on academic performance:~~ Students' academic standing is assessed in May of each year, based on UPEI coursework completed over the previous 12 months. Academic standing is determined on the basis of a cumulative grade point average (CGPA), defined in Academic Regulation 10. Students will be assessed for the first time when they have attempted at least 18 credits at UPEI. Academic Standing will be noted on a student's academic transcript. Students are assigned one of the following standings based the criteria outlined in this regulation (GPA is rounded to the nearest .01): Good Standing Academic Probation Academic Suspension ~~**Definitions:**~~ ~~For the purposes of this policy, "Academic Year" is defined as September 1 to August 31~~ ~~**Academic Standing**~~ ~~Academic standing is determined on the basis of a cumulative grade point average (CGPA), defined in Academic Regulation 10, that is the numerical average of grades earned in all UPEI courses for all semesters completed*. Students are expected to meet the necessary minimum standards for performance while~~

CALENDAR & CURRICULUM CHANGE — Motion #89

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
while attending UPEI. Those who fail to meet the minimum standard will be placed on academic probation. The minimum standard is defined as an academic average on nine or more semester credit hours of UPEI course work that produces a CGPA of at least 1.7 (excludes "P" grades).	~~attending UPEI. Those who fail to meet the minimum standard will be placed on academic probation. The minimum standard is defined as an academic average on nine or more semester credit hours of UPEI course work that produces a CGPA of at least 1.7 (excludes "P" grades).~~
Conditions of Academic Standing a) **Good Standing**: Students are deemed to be in good academic standing if they have achieved a CGPA of 1.70 or higher.	**Conditions of Academic Standing** a) **Good Standing**: Students are deemed to be in good academic standing if they have achieved a CGPA of 1.70 or higher.
b) **Academic Probation**: Academic Probation is a warning to a student that their CGPA is below the required standard for good academic standing.	b) **Academic Probation**: ~~Academic Probation is a warning to a student that their CGPA is below the required standard for good academic standing.~~
Student records are reviewed for academic progress at the end of each academic semester. Students' academic standing is assessed in April, based on coursework completed over the previous 12 months.	~~Student records are reviewed for academic progress at the end of each academic semester.~~ ~~Students' academic standing is assessed in April, based on coursework completed over the previous 12 months.~~
Students will be placed on academic probation if they have a CGPA of less than 1.7 at the time of the academic assessment in April. As a condition of academic probation, students will have restrictions placed on their course load; and, be required to enrol in an academic support program.	Students will be placed on academic probation if they have a CGPA of less than 1.70 at the time of the academic assessment in ~~April~~ May. As a condition of academic probation, students will have restrictions placed on their course load; and, be required to enrol in an academic support program.
Students who are on Academic Probation and who achieve a Semester GPA (SGPA) of 1.7 or higher in subsequent semesters will be permitted to continue their studies at UPEI while on Academic Probation. Students are considered to have returned to good academic standing once their CGPA is 1.7 or higher.	Students who are on Academic Probation and who achieve a Semester GPA (SGPA) of 1.70 or higher in all subsequent semesters will be permitted to continue their studies at UPEI while on Academic Probation. Students are considered to have returned to good academic standing once their CGPA is 1.70 or higher.
*Students are not permitted to graduate while on Academic Probation.	*Students are not permitted to graduate while on Academic Probation.
*Letters of Permission will not be given to students on academic probation.	*Letters of Permission will not be given to students on academic probation.
*Students who entered UPEI prior to September 2013 when the GPA system was introduced, and who maintain continuous registration will be grandfathered	~~*Students who entered UPEI prior to September 2013 when the GPA system was introduced, and who maintain continuous registration will be grandfathered~~

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
under this clause, and not subject to the condition on graduation. c) **Academic Suspension:** Students will be placed on Academic Suspension if they fail to achieve a SGPA or a CGPA of 1.7 or higher after the completion of 30 semester credit hours while on Academic Probation. Students on Academic Suspension are not permitted to take academic courses at UPEI for a full academic year. Any post-secondary studies completed during the period of academic suspension are not eligible for credit toward a degree or other credential at UPEI. d) **Conditions of Academic Standing** will be noted on a student's academic transcript. Following an Academic Suspension, in order to apply for re-admission to the University, students must submit an Undergraduate Application Form to the Registrar's Office. Students who are permitted to return to studies at UPEI return on academic probation, and are subject to the University's policy on academic standing. Students under Academic Suspension a second time will not normally be considered for re-admission for at least two full calendar years following the suspension.	~~under this clause, and not subject to the condition on graduation.~~ c) **Academic Suspension:** Students will be placed on Academic Suspension ~~if they fail to achieve a SGPA or a CGPA of 1.7 or higher after the completion of 30 semester credit hours while on Academic Probation. Students on Academic Suspension are not permitted to take academic courses at UPEI for a full academic year. Any post-secondary studies completed during the period of academic suspension are not eligible for credit toward a degree or other credential at UPEI.~~ if, after the completion of 30 semester hours of credit since being placed on probation, their CGPA is below 1.70 AND any SGPA since being placed on probation is below 1.70. or if upon assessment, a student's CGPA is below 0.50; they will be placed on academic suspension, without being placed on academic probation first. Students on Academic Suspension are not permitted to enrol in academic courses at UPEI for a full year. Any post-secondary studies completed (at any institution) during the period of academic suspension are not eligible for credit toward a degree or other credential at UPEI. ~~d) **Conditions of Academic Standing** will be noted on a student's academic transcript.~~ d) Readmission after Suspension Following an Academic Suspension~~, in order to apply for re-admission to the University~~, students must submit an Undergraduate Application Form to be considered for re-admission to the University. ~~to the Registrar's Office~~. Students who are permitted to return to studies at UPEI return on academic probation and are subject to ~~the University's policy~~ this regulation (including a reduced courseload) ~~on academic standing.~~ Students ~~under~~ placed on Academic Suspension a second time will not normally be considered for re-

CALENDAR & CURRICULUM CHANGE — Motion #89

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Appeal: The conditions of academic probation and academic suspension are subject to appeal to the Senate Academic and Student Discipline Appeals Committee. **NOTE**: Individual programs may have a higher standard for good academic standing and progression. Please refer to the appropriate degree requirements in the Academic Calendar.	admission for at least two full ~~calendar~~ years following the suspension. **Appeal:** The conditions of academic probation and academic suspension are subject to appeal to the Senate Academic and Student Discipline Appeals Committee. **NOTE**: Individual programs may have a higher standard for good academic standing and progression. Please refer to the appropriate degree/program requirements in the Academic Calendar.

Rationale for Change: To provide a more clear and balanced set of parameters for assigning Academic Standing and making the conditions of each status clearer. These changes also define a minimum credit completion required before a review is completed, which is a more balanced approach for students beginning their studies at UPEI in the Winter semester.

Effective Term: FALL 2023

Implications for Other Programs: This regulation influences all Undergraduate programs governed by it.

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval: N/A	N/A
Faculty/School Approval: N/A	N/A
Faculty Dean's Approval: N/A	N/A
Grad. Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 28, 2023

Form Version: September 2022

CALENDAR & CURRICULUM CHANGE — Motion #90

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Registrar's Office**

Department/Program(s)/Academic Regulations: **Terminology and Definitions**

MOTION: To update the Terminology and Definitions section to align with the changes to Academic Regulation (#17).

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Academic standing: at the end of the academic year, students are automatically assigned one of the following standings, based on academic performance: *Good Standing* – Students are deemed to be in good academic standing if they have achieved a CGPA of 1.7 or higher. *Academic Probation* – Academic Probation is a warning to a student that has been below the required standard and could lead to an Academic Suspension. *Academic Suspension* – Students will be placed on Academic Suspension if they fail to achieve a SGPA or a CGPA of 1.7 or higher after the completion of 30 semester credit hours while on Academic Probation.	*Academic standing*: in May of each year ~~at the end of the academic year~~, students are automatically assigned one of the following standings, based on academic performance: *Good Standing* – Students are deemed to be in good academic standing if they have achieved a CGPA of 1.70 or higher. *Academic Probation* – Academic Probation is a warning to a student that has been below the required standard and could lead to an Academic Suspension. *Academic Suspension* – Students will be placed on Academic Suspension if ~~they fail to achieve a SGPA or a CGPA of 1.7 or higher after the completion of 30 semester credit hours while on Academic Probation.~~ after the completion of 30 semester hours of credit since being placed on probation, their CGPA is below 1.70 AND any SGPA since being placed on probation is below 1.70, OR if upon assessment, a student's CGPA is below 0.50; they will be placed on academic suspension, without being placed on academic probation first.

Rationale for Change: To align with changes made to Academic regulation #17 Academic Standing.

Effective Term: FALL 2023 **Implications for Other Programs:** None

Impact on Students Currently Enrolled: More clear and balanced approach to reviewing for and assigning Academic Standing.

Authorization	***Date:***
Departmental Approval: N/A	N/A
Faculty/School Approval: N/A	N/A
Faculty Dean's Approval: N/A	N/A
Grad. Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	February 6, 2023

UNIVERSITY of Prince Edward ISLAND

Academic Planning and Curriculum Committee
April 28, 2023

CALENDAR & CURRICULUM CHANGE — Motion

Revision is for a: **Calendar Entry Change**

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Department of Biology**

MOTION: That the calendar entry be revised as proposed.

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Paramedicine Coordinator: Trevor Jain The Bachelor of Science (BSc) in Paramedicine combines occupational content provided by the Paramedicine Diploma programs at Holland College (or any two-year CMA-accredited paramedicine program) with foundational science courses, senior specialized courses in the life sciences, and advanced capstone paramedicine courses at the University of Prince Edward Island. It is designed for paramedics interested in enhancing their science knowledge as well as their research and communication skills, thus increasing access to post-graduate opportunities (e.g., Master's degree programs) and improving job prospects. While at UPEI, paramedics in the BSc. program will take 20 courses. Of these, 15 are required (core) courses and the rest will be electives. The core courses will primarily be in Biology, with four advanced courses in Paramedicine: **NOTE: As per Academic Regulation #1 h), all undergraduate degree programs require successful completion of IKE-1040, one of UPEI-1010, 1020 or 1030, and a Writing Intensive Course.** -3 first year courses: First Year Experience, Introductory Biology I (Introduction to Cell & Molecular Biology), Introductory Chemistry I (General Chemistry I); -5 second year courses: Cell Biology, Microbiology, Human Genetics, Human Biochemistry, Introductory Statistics or Introduction to Probability and Statistics; -2 third year courses: Research Methods & Communications, Medical Microbiology; and -5 fourth year courses: Basic & Clinical Immunology or Medical Biology; Health Promotion, Planning &	Paramedicine Coordinator: Trevor Jain The Bachelor of ~~Science (BSc) in Paramedicine~~ Applied Health (Paramedicine, and Paramedicine with Honours) combines occupational content provided by the Paramedicine Diploma programs at Holland College (or any two-year CMA-accredited paramedicine program) with foundational science courses, senior specialized courses in the life sciences, and advanced capstone paramedicine courses at the University of Prince Edward Island. It is designed for paramedics interested in enhancing their science knowledge as well as their research and communication skills, thus increasing access to post-graduate opportunities (e.g., Master's degree programs) and improving job prospects. While at UPEI, paramedics in the ~~BSc.~~ Bachelor of Applied Health program will take 20 courses. Of these, ~~15~~ 16 are required (core) courses and the rest will be electives. The core courses will primarily be in Biology, with four advanced courses in Paramedicine: **NOTE: As per Academic Regulation #1 h), all undergraduate degree programs require successful completion of IKE-1040, one of UPEI-1010, 1020 or 1030, and a Writing Intensive Course.** ~~3~~ 4 first year courses: First Year Experience, Introductory Biology I (Introduction to Cell & Molecular Biology), Introductory Chemistry I (General Chemistry I); Indigenous Teachings of Turtle Island -5 second year courses: Cell Biology, Microbiology, Human Genetics, Human Biochemistry, Introductory Statistics or Introduction to Probability and Statistics; -2 third year courses: Research Methods & Communications, Medical Microbiology; and

CALENDAR & CURRICULUM CHANGE

Motion

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
Evaluation; Disaster Medicine & Crisis Response; Critical Appraisal of Health Care Literature in the Acute Care Environment; and Current Issues in Paramedicine. Paramedics will take five elective courses to complete this program. Two of these electives must be from Science (Chemistry, Nutrition, Kinesiology or Physics) or Social Science areas (Business, Psychology or Philosophy). Students with an average of 75% in second year may apply to complete an Honours thesis and enrol in Paramedicine 4900 – Honours Thesis in Paramedicine. **COURSE SEQUENCE:** **YEAR I** Biology 1310 (Introduction to Cell & Molecular Biology) Biology 2060 (Microbiology) Biology 2210 (Cell Biology) Biology 2240 (Human Genetics) Biology 2250 (Human Biochemistry) Chemistry 1110 (General Chemistry I) Paramedicine 4010 (Health Promotion, Planning and Evaluation) UPEI 1010/1020/1030 (First Year Experience) 2 Electives (recommended from the list below) **YEAR 2** Biology 3310 (Research Methods and Communications in Biology) Biology 3750 (Medical Microbiology) Biology 4050 (Medical Biology) OR Biology 4750 (Basic and Clinical Immunology) Paramedicine 4020 (Disaster Medicine and Crisis Response) Paramedicine 4030 (Critical Appraisal of Health Care Literature in the Acute Care Environment) Paramedicine 4040 (Current Issues in Paramedicine) Statistics 1210 (Introductory Statistics) OR 1910 (Introduction to Probability and Statistics) 2 Electives or Paramedicine 4900 (Honours Research & Thesis) 1 Final Elective	-5 fourth year courses: Basic & Clinical Immunology or Medical Biology; Health Promotion, Planning & Evaluation; Disaster Medicine & Crisis Response; Critical Appraisal of Health Care Literature in the Acute Care Environment; and Current Issues in Paramedicine. Paramedics will take ~~five~~ four elective courses to complete this program. Two of these electives must be from Science (Chemistry, Nutrition, Kinesiology or Physics) or Social Science areas (Business, Psychology or Philosophy). Students with an average of 75% in second year may apply to complete an Honours thesis and enrol in Paramedicine 4900 – Honours Thesis in Paramedicine. **COURSE SEQUENCE:** **YEAR I** Biology 1310 (Introduction to Cell & Molecular Biology) Biology 2060 (Microbiology) Biology 2210 (Cell Biology) Biology 2240 (Human Genetics) Biology 2250 (Human Biochemistry) Chemistry 1110 (General Chemistry I) IKE 1040 (Indigenous Teachings of Turtle Island) Paramedicine 4010 (Health Promotion, Planning and Evaluation) UPEI 1010/1020/1030 (First Year Experience) ~~2~~ 1 Electives~~s~~ (recommended from the list below) **YEAR 2** Biology 3310 (Research Methods and Communications in Biology) Biology 3750 (Medical Microbiology) Biology 4050 (Medical Biology) OR Biology 4750 (Basic and Clinical Immunology) Paramedicine 4020 (Disaster Medicine and Crisis Response) Paramedicine 4030 (Critical Appraisal of Health Care Literature in the Acute Care Environment) Paramedicine 4040 (Current Issues in Paramedicine) Statistics 1210 (Introductory Statistics) OR 1910

CALENDAR & CURRICULUM CHANGE

Motion # 91

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
	(Introduction to Probability and Statistics) 2 Electives or Paramedicine 4900 (Honours Research & Thesis) 1 Final Elective

Rationale for Change: MPHEC recently approved the name change of the program. Inclusion of IKE 1040 is also being added to the course sequence information.

Effective Term: FALL 2024

Implications for Other Programs: None

Impact on Students Currently Enrolled: None

Authorization	***Date:***
Departmental Approval:	
Faculty/School Approval: Science Council	April 26, 2023
Faculty Dean's Approval: Dr. Nola Etkin	April 26, 2023
Grad. Studies Dean's Approval: N/A	N/A
Registrar's Office Approval: Darcy McCardle	April 26, 2023

Form Version: September 2022