

## Minutes of the Third Meeting of Senate

**Present:** G. Keefe (Chair), K. Mears (Vice-Chair), A. Trowbridge (Secretary to Senate), P. Augustine, P. Bernard, L. Brinklow, O. Brown, M. Buote, A. Campbell, T. Carroll, S. Connolly, E. Côté, G. Evans, S. Fitzpatrick, R. Gauthier, S. Hamilton, A. Hsiao, T. Judson, B. Linkletter, S. Lloyd, J. MacFadyen, A. MacKenzie, T. Mady, N. Mannholland, W. Montelpare, D. Moses, C. Murray, S. Myers, G. F. Naterer, S. Reijers, C. Ryan, T. Saunders, J. Sentance, M. Sweeney-Nixon, M. Turnbull, J. VanLeeuwen, M. von Eccher, B. Waterman

**Regrets:** C. Adeyanju, M. Arfken, D. Coll, N. Etkin, A. MacLaren, C. Mady, S. Nandlal, W. Peters, R. Raiswell, B. Stoughton

**Recorder:** S. O'Connor

President Keefe called the meeting to order at 3:02 pm. He gave a land acknowledgment, welcomed Adam MacKenzie as a new student Senator and also acknowledged the passing of esteemed Senator and faculty member, Carlo Lavoie.

**1. Approval of Agenda**

a. **MOTION (B. Waterman/B. Montelpare) to approve the agenda as amended. CARRIED.**

**2. Approval of Minutes**

a. **October 20, 2023**

**MOTION (B. Linkletter/B. Montelpare) to approve the minutes of October 20, 2023 as presented. CARRIED.**

**3. President's Report and Question Period**

a. **President's Report**

President Keefe highlighted that a great deal of the work of the President is in relationship building. A key aspect of that relationship building is internal to the community. He acknowledged the helpful feedback from listening sessions with the campus community, noting faculty and staff dedication to the core mission of the university, as well as challenges related to resource limitations. The information gathered from these sessions will contribute to the ongoing Action Plan Advisory Group process.

Acknowledgements were made for contributions from participants in the recent Joint Board of Governors and Senate meeting. One of the key discussion items that came from the joint meeting was the importance of revitalizing the Board Senate Liaison Committee.

The President also highlighted UPEI's crucial relationship with government, emphasizing ongoing efforts required to engage stakeholders for understanding and support, particularly in light of the significant investments required by the Action Plan. Partnerships with students, alumni, donors and the broader community through communication, meetings, events and sports were also highlighted as critical to the university.

In response to a request from a Senator at the last meeting of Senate, President Keefe reported that HR data shows 14 permanent new hires between May 1, 2022 and present, and 13 replacement hires. The 14 new hires are in the following faculties: Faculty of Arts - 2, Faculty of Science - 4, Faculty of Sustainable Design Engineering - 1, Faculty of Indigenous

Knowledge, Education, Research, and Applied Studies 1, Faculty of Nursing 1, Faculty of Veterinary Medicine - 2, Faculty of Education - 1 and Faculty of Business - 2.

Student success and employee supports have been identified as priority areas in the 2024/25 budget process. Vice Presidents have been asked to bring prioritized budget requests focused on these areas. Requests for support should be in line with this.

Responding to a question that was submitted to the Steering Committee, President Keefe reported that mobility is a priority in the development of the north end of the campus. Plans include the establishment of walking paths, sidewalks, and bike lanes along existing roadways. Additionally, future developments will connect to the Confederation trail. Construction progress is on schedule, and the building is expected to open as planned in 2025. It will serve as a focal point in the ongoing development of the north campus, addressing critical space shortage issues.

**b. Campus Achievements and Recognitions**

VPAR G. Naterer shared highlights and achievements in research, grants, projects and other academic initiatives underway in his report:

*Research Excellence*

As per the Strategic Research Plan, the profile and visibility of research excellence are growing at UPEI, nationally and internationally. For example, ten UPEI professors were named in Stanford University's Elsevier Top 2% of Scientists and Engineers in the World for 2023, up from last year, showcasing the university's increasing international impact of research.

*Research Activity Indicators*

As another indicator of growing research activity, based on Romeo Analytics, the research services office had a record number of applications, awards, and events in October - 122 - or an average of 5.5 applications per day. Special thanks to the entire team in research services for the excellent work.

*Research Grants and Projects*

Notable research grants and projects in the past month include new climate-related initiatives, a CIHR grant for LGBTQ+ health, and projects in areas including sea lice population sensitivity, greenhouse gas emissions monitoring, solar energy-driven hydrogen production, and veterans' success. Funding amounts ranged from \$10,000 to \$450,000.

VP Naterer also noted that Luke McCarvill, a final year student in the Faculty of Sustainable Design Engineering, has been named a Rhodes Scholar.

*Strategic Enrolment Management (SEM)*

To have a more careful and methodical approach to enrollment at the university, a steering committee has been established for the development of a UPEI Strategic Enrolment Plan (SEM). SEM aims to optimize enrolments, recruitment, retention, and graduation rates while maintaining quality education and sustainability. This group will consider student accessibility among many other areas.

Deans and Associate Deans of faculties will be developing individual plans within their units through consultation with faculty, staff and students. These unit plans will then inform the University plan. Two subcommittees (student success and resource planning) will focus on key themes and consult accordingly when developing those thematic parts to also inform the

University plan.

The Steering Committee and two Subcommittees will have broad consultation across campus, including faculty, librarians, staff, students, and academic administrators. Once that plan is developed it will go to APCC then to Senate. If you have input to provide to one of these committees in the process, please let the VPAR or Chairs of the committees know.

**c. Question Period**

K. Mears asked if the President was planning to hold listening sessions with CUPE or the Faculty Association and if the strategic enrollment committee information will be available on the UPEI website. She also stated concern about the funding that will come from government to meet the objectives of the action plan.

President Keefe indicated that consultations would continue through the Action Plan development process. He reiterated the importance of positive engagement with the Province as well as the regular meetings with the Federal government. The message being put forward is that UPEI is working on the substantial issues identified and will require continuing support.

**4. Senate Reports**

**a. Academic Planning and Curriculum Committee**

**i. Third Curriculum Report**

**FACULTY OF EDUCATION**

- 1) MOTION (G. Naterer/R. Gauthier) to remove ED 6150 (Educational Leadership) as a pre-requisite for ED 6180 (Learning: Leadership & Reflective Practice). CARRIED**

(See details in the attached Curriculum Report—Page 3)

**FACULTY OF SCIENCE**

**OMNIBUS MOTION (G. Naterer/M. Sweeney-Nixon) that motions 2-7 be approved as noted below: CARRIED**

- 2) To have the new course Physics 2310 Biological Physics of Molecules approved as proposed.**

(See details in the attached Curriculum Report—Pages 5-10)

- 3) To have the new course Physics 4320 Biological Physics of Cells approved as proposed.**

(See details in the attached Curriculum Report—Pages 11-16)

- 4) To have the change in the Requirements for Minor in Physics be approved as proposed.**

(See details in the attached Curriculum Report—Pages 17-18)

- 5) To have the change in the Requirements for the Minor in Medical and Biological Physics be approved as proposed.**

(See details in the attached Curriculum Report—Pages 19-21)

- 6) To have the calendar entry for 'Course Requirements for the Areas of Specialization' be approved as proposed.**

(See details in the attached Curriculum Report—Page 22)

**7) To add a pre-requisite to ENV 2240 Field Course in Ecological Forestry as proposed.**

(See details in the attached Curriculum Report—Page 23)

**REGISTRAR'S OFFICE**

**8) MOTION (G. Naterer/A. Trowbridge) to replace the History (of UPEI) entry in the Academic Calendar. CARRIED**

(See details in the attached Curriculum Report—Page 23-33)

**ii. MOTION (G. Naterer/A. MacKenzie) to provide information regarding the Student Entrepreneurship Initiative to the agenda. CARRIED.**

The UPEI Centres Policy has another third category, separate from research and outreach centers—service-based centers such as the Webster Centre for Student Success and the Math Help Centre. Further effort will investigate the founding of these centers and reporting those findings to the Senate Steering and Nomination Committee for guidance going forward.

K. Mears clarified that the recent Senate concerns about this initiative weren't so much centered on its name as on the university bringing concepts to the table once they are complete. Senator Mears expressed that this must change in order to truly improve the culture here. There were also concerns raised from some other institutes and centres on campus that are currently struggling for resources voicing concern for how an additional centre would be sustainable.

T. Mady shared that the planning of this initiative has been based on secured external funding. The proposal first went to the Senate Research Advisory Committee and was not deemed a research centre. The university policy was adhered to, and the concept was presented to Senate as part of due diligence efforts.

B. Linkletter indicated that another issue raised previously was having space on campus that will no longer be available to the entire university community but to a particular group. He acknowledged that floor plans are not the purview of Senate, however issues like this are important for the university to consider.

**b. Senate Steering & Nominating Committee**

- i. SASDA Committee Chair Acclaimed – Richard Raiswell  
Based on a recent electronic call for nominations, Richard Raiswell has been acclaimed to serve as Chair of the Senate Academic and Student Discipline Appeals Committee for an additional three-year term.

- ii. Call for Nominations  
Senate Representative to sit on Board of Governors  
A request for nominations was made from the floor to appoint a Senator to represent Senate on the Board of Governors. B. Waterman was nominated by T. Mady. Seeing no other nominations, B. Waterman was acclaimed.

Student Senator Representative to sit on the Board Senate Liaison Committee  
A request for nominations was made from the floor to appoint a student Senator to sit on the Board Senate Liaison Committee. N. Mannholland was nominated by A. MacKenzie. Seeing no other nominations, N. Mannholland was acclaimed.

5. **Annual Reports – For Information Only**

a. **Senate Research and Advisory Committee**

b. **Senate Committee on Scholarships and Awards**

J. Sentance inquired about the Senate Committee on Scholarships and Awards doing systematic analyses on departments that do not have a significant number of awards.

Erin Morozoff, Assistant Manager, Scholarships, Awards & Financial Aid, was called upon from the Senate gallery and conveyed that her team has identified the need for underrepresented departments to acquire funding for student awards. The next step involves formulating an effective plan to assist these departments.

President Keefe emphasized the importance of UPEI's Development Office, as donors will either specify their fund allocation or indicate their preference is to support the area of greatest need.

M. Sweeney-Nixon asked where to direct the minutes of Senate Committee meetings. K. Mears shared that committee Chairs will be notified once the operational process has been completed.

**MEETING MOVED TO IN CAMERA**

6. **Adjournment**

**MOTION (T. Carroll) that the meeting be adjourned at 4:14 pm. CARRIED.**

Respectfully Submitted,

Andrea Trowbridge  
Secretary of Senate



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Motion		Page #
<b>Faculty of Education</b>		
<b>Summary of Changes</b>		
1. Education 6150	Calendar & Curriculum Change	2 3
<b>Faculty of Science</b>		
<b>Summary of Changes</b>		
2. Physics 2310	New Course Proposal	4 5-6
Library Resources for Physics 2310		7-10
3. Physics 4320	New Course Proposal	11-12
Library Resources for Physics 4320		12-16
4. Minor in Physics	Calendar Entry Change	17-18
5. Minor in Medical Biological Physics	Calendar Entry Change	19-21
6. Environmental Studies	Calendar Entry Change	22
7. ENV 2240	Pre-Requisite Addition/ Change	23
<b>Registrar's Office</b>		
<b>Summary of Changes</b>		
8. History of UPEI	Calendar Entry Change	24 25-33

SUMMARY OF FACULTY OF EDUCATION

MOTION #'S 1

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**Summary of Motions**  
**Faculty of Education**

#	Type of Motion	Motion
1.	Pre-requisite Addition/Change	MOTION: Removal of ED 6150 (Educational Leadership) as a pre-requisite for ED 6180 (Learning: Leadership & Reflective Practice).



**CALENDAR & CURRICULUM CHANGE**

**Motion # 1**

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

Faculty/School/Department: **Education**

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

**MOTION: Removal of ED 6150 (Educational Leadership) as a pre-requisite for ED 6180 (Learning: Leadership & Reflective Practice).**

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
<p>ED 6180 LEARNING, LEADERSHIP AND REFLECTIVE PRACTICE</p> <p>In this course, students examine processes of reflective practice such as analytic problem-solving and self-assessment. Students research reflective practices that have made positive contributions to learning and leadership.</p> <p>PREREQUISITE: Education 6110 and Education 6150 or permission of graduate studies coordinator.</p>	<p>ED 6180 LEARNING, LEADERSHIP AND REFLECTIVE PRACTICE</p> <p>In this course, students examine processes of reflective practice such as analytic problem-solving and self-assessment. Students research reflective practices that have made positive contributions to learning and leadership.</p> <p>PREREQUISITE: Education 6110 and <del>Education 6150</del> or permission of graduate studies coordinator.</p>

**Rationale for Change:** ED 6180 is one of five specialized research methods courses students can select after completing introduction to research ED 6110. Of the 5 second research courses, ED 6180 is the only course which has this additional prerequisite course (ED 6150). This creates an additional restriction for student registration, which the faculty feel is unnecessary. Removal of the ED 6150 prerequisite will bring this methodology course in line with the other 4 methodology courses which currently do not have this additional requirement.

**Effective Term:** FALL 2024

**Implications for Other Programs:** There are no implications for other programs.

**Impact on Students Currently Enrolled:** This will enable students to register for the ED 6180 without receiving individual exception from the Graduate Studies Coordinator.

**Authorization**

**Date:**

Departmental Approval: Education Graduate Studies Committee	September 8, 2023
Faculty/School Approval: Faculty of Education Council	September 8, 2023
Faculty Dean's Approval: Dr. Miles Turnbull, Dean	September 12, 2023
Grad. Studies Dean's Approval: Dr. Marva Sweeney-Nixon	October 11, 2023
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version September 2023

## Summary of Motions Faculty of Science

#	Type of Motion	Motion
1	New Course Proposal	Phys 2310 Biological Physics of Molecules
2	New Course Proposal	Phys 4320 Biological Physics of Cells
3	Calendar Entry Change	Requirements for a Minor in Physics - add Engineering courses to list
4	Calendar Entry Change	Requirements for Minor in Medical and Biological Physics - add Physics 2310, Physics 4320, and Engineering courses to list
5	Calendar Entry Change	revised wording relating to declaring a specialization (request from reg office)
6	Pre-req Addition/change	ENV 2240 Field Course in Ecological Forestry - add requisite - enrolled in Environmental Studies Major or Minor or with permission from instructor

**New Course Proposal**

**Motion # 2**

Faculty/School: **Science**

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

**MOTION: To have the new course Physics 2310 Biological Physics of Molecules approved as proposed.**

Course Number and Title	PHYS 2310: Biological Physics of Molecules
Description	An introduction to molecular biology from a physics perspective. Topics covered include diffusion and random walks; fluid mechanics, especially low Reynolds number; single molecule mechanics of biopolymers; statistical physics in a form suitable for single-molecule experiments; co-operativity and self-assembly; molecular machines; and neural signaling. Techniques and methodologies, both experimental and computational, are included in the presentation of each topic.
Cross-Listing	
Prerequisite/Co-Requisite	Physics 1120 or Physics 1220, and Mathematics 1120 or Mathematics 1910, or permission of the instructor
Credit(s)	3
Notation	Three hours lecture per week

**This is:** An Elective Course

**Grade Mode:** Numeric (Standard)

**Anticipated Enrolment:** 20-30 **Is there an Enrolment Cap:** No

*If there is an enrolment limit, please explain.*

**Rationale for New Course:** The past 25 years has seen a revolution in physics techniques to get inside the nanoworld of cells, tweak them in physical ways, and measure quantitatively the results. At last, a lot of physics concepts underlying the illustrations found in molecular biology books are getting the precise tests needed to confirm or reject them. There is no existing course at UPEI that introduces molecular biology from a physics perspective, and this course fills that void; offering physical science/engineering student's connections to the excitement in the life sciences; and life science students grounding in the powerful tool of a quantitative, physics-based approach to problems. While the course is not about medicine per se, it addresses many of the competencies that are good preparation for pre-med or pre-vet students.

**Effective Term:** FALL 2024

**Implications for Other Programs:** None. This course would serve as an elective for students who are seeking a more physics-based understanding of biological molecules.

**New Course Proposal**

**Motion # 2**

**Impact on Students Currently Enrolled:** No negative impact. All current students who meet the pre-requisites can take this course as an elective. The course is being initially introduced as an elective for the physics minor, majors, and honours streams.

**Resources Required:** No additional resources. The course will be offered amongst a suite of physics electives as existing resources allow.

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

*If yes, please explain.*

**Authorization**

**Date:**

Departmental Approval: Derek Lawther	August 24, 2023
Faculty/School Approval: Science Council	September 26, 2023
Faculty Dean's Approval: Nola Etkin	September 26, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version: September 2023

## New Course Proposal

## Motion # 2

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### LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

#### Physics 2310: Biological Physics of Molecules

*To be completed by the liaison and/or collections librarian.*

**Note that the submitting program is required to allow the library staff two weeks to complete this.**

Existing resources:

- Collections – Print books, Ebooks, other physical media, other online media, subscriptions, other
  - EBSCO Discovery Service (OneSearch) – Subject term search using Library of Congress Subject Headings:
    - ((Molecules OR Biomolecules OR "Molecular biology" OR "Molecular neurobiology") AND (Biophysics OR Physics OR Diffusion OR "Random walks (Mathematics)" OR "Fluid mechanics" OR Biopolymers OR "Cooperative binding (Biochemistry)" OR "Self-assembly (Chemistry)" OR "Molecular machinery" OR "Neural transmission" OR "Statistical physics")) NOT (Molecules AND Physics))

returns over 400 results, limiting to Books and eBooks in the Library Collection published since 2013.

- The "NOT (Molecules AND Physics)" helps reduce if not eliminate results discussing molecular physics without any exploration of a biological component.
- ebooks are sourced from substantial collections made available to us 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:
  - EBSCO
  - Elsevier
  - Wiley
  - Springer
  - Sage
  - ProQuest
  - Taylor & Francis
  - O'Reilly Higher Education (formerly Safari)
  - Canada Commons (formerly DesLibris)
  - JSTOR
- INSPEC – Thesaurus search:
  - (DE "biomolecular effects of radiation" OR DE "molecular biophysics" OR DE "molecules") AND (DE "biomechanics" OR DE "biophysics" OR DE "biological fluid dynamics" OR DE "fluid mechanics" OR DE "statistical mechanics" OR DE "self-assembly" OR DE "biodiffusion" OR DE "diffusion" OR DE "polymers" OR DE "molecular electronics" OR DE "biomolecular electronics")returns over 29,000 indexed records and abstracts of peer-reviewed articles published since 2013.

## New Course Proposal

## Motion # 2

- CRC Handbook of Chemistry and Physics (maintained through subscription)
- Institute of Physics (IOP Electronic Journals) – Keyword search:
  - (biomolecul\* OR (molecule\* AND (biophysics OR “biological physics”)) OR “molecular biology” OR “molecular neurobiology”)  
returns over 19,600 results, with nearly 9200 published in the last five years.
  - (biomolecul\* OR (molecul\* AND (biophysics OR "biological physics")) OR "molecular biology" OR “molecular neurobiology”) AND (diffusion OR "random walks" OR "fluid mechanics" OR ("single molecule" AND ("statistical physics" OR biopolymers)) OR "cooperative binding" OR "self-assembly" OR (molecular machine\*) OR (neural (signaling OR transmission)))  
returns over 8400 results, with 4100 published in the last five years.
- Interdisciplinary packages that include content that support this course.
  - Academic Search Complete – Subject terms search:
    - ((DE "BIOMOLECULES" OR DE "MOLECULES" OR DE "MOLECULAR biology") AND (DE "BIOPHYSICS" OR DE “PHYSICS” OR ((DE “SINGLE molecule research” OR DE “SINGLE molecules”) AND (DE “BIOPOLYMERS” OR DE “STATISTICAL physics”)) OR DE “BIOLOGICAL fluid dynamics” OR DE “FLUID mechanics” OR DE “REYNOLDS number” OR DE “DIFFUSION” OR DE “RANDOM walks” OR DE “COOPERATIVE binding (Biochemistry)” OR DE “MOLECULAR self-assembly” OR DE “MOLECULAR machinery (Technology)” OR DE “NEURAL transmission”)) NOT (DE “MOLECULES” AND DE “PHYSICS”))

returns over 1800 peer-reviewed results published since 2013.

- The “NOT (DE “MOLECULES” AND DE “PHYSICS”)” helps reduce if not eliminate results discussing molecular physics without any exploration of a biological component.
- Wiley Online – Keyword search:
  - (((biomolecul\* OR molecul\* OR "molecular biology") AND (biophysics OR "biological physics" OR physics OR diffusion OR "random walks" OR "fluid mechanics" OR ("single molecule" AND ("statistical physics" OR biopolymers)) OR "cooperative binding" OR "self-assembly" OR (molecular machine\*) OR (neural (signaling OR transmission)))) NOT (molecul\* AND physics)  
returns over 5900 results published in the last ten years.
    - “NOT (molecule\* AND physics)” again used to filter out non-biological results.
- Elsevier (ScienceDirect) – Keyword search:
  - ((biomolecule OR biomolecular OR "molecular biology" OR “molecular neurobiology”) AND physics) OR ((molecule OR molecular) AND (biophysics OR

## New Course Proposal

## Motion # 2

"biological physics"))  
returns over 109,000 results published in the last ten years within these subject areas:

- Biochemistry, Genetics and Molecular Biology
  - Chemistry
  - Physics and Astronomy
  - Neuroscience
- Gale Academic OneFile
- Springer
- Sage
- Scopus
- Other collections:
  - Sage Research Methods
  - Streaming video collections including:
    - Academic Videos Online (Proquest)
    - Curio.ca
  - OED Online
  - Canadian Business & Current Affairs
  - 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:
    - SCOAP<sup>3</sup>
    - arXiv
    - Canadian Patent Database
    - United States Patent and Trademark Office database
    - European Patent Office
    - MEDLINE
  - We also collect extensively on PEI materials (including undergraduate theses), which are accessed through the Special Collections services of the library and online on [islandarchives.ca](https://islandarchives.ca). Full list of resources is available at [https://library.upei.ca/databases\\_all](https://library.upei.ca/databases_all).
- Physical Space in Library (other than collections, explain) – N/A
- Library Administrative/Research Support
  - Physics Liaison Librarian: Mackenzie Johnson

New resources needed to support this proposal: none.

Summary of additional budget allocation required:

- First year startup: \$ 0 in first fiscal year the course/program is offered.
- Additional startup years: \$ 0 in second year, \$ 0 in third year....



**New Course Proposal**

**Motion # 2**

- Annual: \$ 0 in addition to the startup figure(s) above starting in the fiscal year AFTER the year the course is first offered
  - Per-year percentage increase in annual: n/a

Note that if future budget constraints require the Library to cancel interdisciplinary packages listed above, there will be a loss of resources needed for this course.

Date Received by Liaison/Collections Librarian	August 25, 2023
Name of Librarian to be Contacted with Questions	Mackenzie Johnson
Approved by University Librarian or Designate	Donald Moses
Date Approved by UL or Designate	September 8, 2023

Form Version: September 2023



**New Course Proposal**

**Motion # 3**

Faculty/School: **Science**

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

**MOTION: To have the new course Physics 4320 Biological Physics of Cells approved as proposed.**

Course Number and Title	PHYS 4320: Biological Physics of Cells
Description	This course will develop physics models of cellular structures and functions and use these models to discuss experiments in cellular biology. Examples of questions that will be explored are: "How do viruses assemble?", "How does a cell move?", "How are circuits constructed from genes and proteins?", and "How does a leopard get its spots?". Students will learn a quantitative, physics-based approach to problems involving statistical mechanics, chemical kinetics, elasticity, theory, fluid dynamics, and diffusion, as they apply to cell biology.
Cross-Listing	
Prerequisite/Co-Requisite	Physics 1120 or Physics 1220, Mathematics 1120 or Mathematics 1910, and Biology 2210, or permission of the instructor.
Credit(s)	3
Notation	Three hours lecture per week.

**This is:** An Elective Course

**Grade Mode:** Numeric (Standard)

**Anticipated Enrolment:** 20-30 **Is there an Enrolment Cap:** No

*If there is an enrolment limit, please explain.*

**Rationale for New Course:** The past 25 years has seen a revolution in physics techniques to get inside the nanoworld of cells, tweak them in physical ways, and measure quantitatively the results. At last, a lot of physics concepts underlying the illustrations found in cell biology books are getting the precise tests needed to confirm or reject them. There is no existing course at UPEI that introduces cell biology from a physics perspective, and this course fills that void; offering physical science and engineering students, connections to the excitement in the life sciences; and life science students grounding in the powerful tool of a quantitative, physics-based approach to problems. Although the course is not about medicine per se, it addresses many of the competencies that are good preparation for pre-med or pre-vet students.

**Effective Term:** FALL 2024

**Implications for Other Programs:** None. This course would serve as an elective for students who are seeking a more physics-based understanding of biological cells.

**New Course Proposal**

**Motion # 3**

Impact on Students Currently Enrolled: No negative impact. All current students who meet the pre-requisites could take this course as an elective. The course is being introduced initially as an elective for the physics minor, majors, and honours streams.

Resources Required: No additional resources. The course will be offered amongst a suite of physics electives as existing resources allow.

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

*If yes, please explain.*

**Authorization**

**Date:**

Departmental Approval: Derek Lawther	August 24, 2023
Faculty/School Approval: Science Council	September 26, 2023
Faculty Dean's Approval: Nola Etkin	September 26, 2023
Graduate Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version: September 2023

## New Course Proposal

## Motion # 3

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### LIBRARY RESOURCE REQUIREMENTS FOR A NEW COURSE PROPOSAL

#### Physics 4320: Biological Physics of Cells

*To be completed by the liaison and/or collections librarian.*

**Note that the submitting program is required to allow the library staff two weeks to complete this.**

Existing resources:

- Collections – Print books, Ebooks, other physical media, other online media, subscriptions, other
  - EBSCO Discovery Service (OneSearch) – Subject term search using Library of Congress Subject Headings:
    - (((“Cells” OR Cytology OR “Veterinary cytology” OR “Livestock – Cytology”) AND (Physics OR Biophysics OR Biomagnetism OR Bioelectromagnetism OR Biomechanics OR Biothermodynamics OR “Medical Physics”)) OR “Bacteria – Motility” OR “Bacterial cell walls – Mechanical properties” OR “Cancer cells – Motility” OR “Cells – Mechanical properties” OR “Cells – Motility” OR “Fungal cell walls -- Mechanical properties” OR “Leucocytes – Motility” OR “Protozoa – Motility” OR “Spermatozoa – Motility”) NOT (((solar OR photovoltaic OR Lithium OR load OR gas OR fuel) cells) OR “particle-in-cell”)  
returns over 230 results limiting to books and ebooks available in the library collection published since 2013
      - NOT (((solar OR photovoltaic OR Lithium OR load OR gas OR fuel) cells) OR “particle-in-cell”) filters on all text (not just subject headings), removing results that aren’t actually related to course topics.
    - ebooks are sourced from substantial collections made available to us 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:
      - EBSCO
      - Elsevier
      - Wiley
      - Springer
      - Sage
      - ProQuest
      - Taylor & Francis
      - O’Reilly Higher Education (formerly Safari)
      - Canada Commons (formerly DesLibris)
      - JSTOR
  - INSPEC – Thesaurus search:
    - DE "biomembrane transport" OR DE "cell motility" OR DE "cellular biophysics" OR DE "cellular effects of radiation" OR DE "cellular transport"  
returns over 155,000 peer-reviewed results published since 2013.

## New Course Proposal

## Motion # 3

- Over 148,000 results with either link to full-text or “Check@UPEI” Full Text Finder link
- CRC Handbook of Chemistry and Physics (maintained through subscription)
- Institute of Physics (IOP Electronic Journals) – Keyword search:
  - (Cells NOT (solar OR photovoltaic OR lithium)) OR Cytology OR (motility NOT (gastr\* OR bowel)) OR "cellular biophysics"  
returns over 400 results, with over 200 results published in the last five years.
- Interdisciplinary packages that include content that support this course.
  - Academic Search Complete – Subject terms search:
    - (DE "MECHANOTRANSDUCTION (Cytology)" OR DE "SPERM motility" OR DE "FISH spermatozoa motility" OR DE "INSECT spermatozoa motility" OR DE "LEUCOCYTE motility" OR DE "CELL motility" OR DE "CILIA & ciliary motion" OR DE "MECHANOTAXIS" OR DE "CANCER cell motility" OR DE "MOTILITY of protozoa" OR DE "MYXOMYCETE motility" OR DE "MOTILITY of bacteria" OR DE "BACTERIAL flagella" OR DE "ESCHERICHIA coli motility" OR DE "CATTLE spermatozoa -- Motility" OR DE "CELLULAR mechanics" OR DE "MECHANICAL properties of bacterial cell walls" OR DE "MECHANICAL properties of fungal cell walls" OR DE "CELLULAR bioenergetics" OR DE "CELLULAR signal transduction" OR (DE "LUMINOUS bacteria" AND DE "BIO-optics"))  
returns over 72,000 peer-reviewed articles published in the last ten years, over 70,000 of which are available in full-text
  - Elsevier (ScienceDirect) – Keyword search:
    - (Cytology AND (biophysics OR biomechanics OR physics)) OR (Cells AND (motility OR biophysics OR biomechanics OR biothermodynamics))  
returns over 188,000 results published in the last ten years within these subject areas:
      - Biochemistry, Genetics, and Molecular Biology
      - Medicine and Dentistry
      - Agricultural and Biological Sciences
      - Neuroscience
      - Immunology and Microbiology
  - Gale Academic OneFile – Subject search:
    - "Cell motility" OR "Bacterial motility" OR "Sperm motility" OR "Chemotaxis" OR "Cilia" OR "Flagella"  
returns over 1200 peer-reviewed results published in the last ten years, with over 700 full-text results.
  - Wiley Online
  - Springer

## New Course Proposal

## Motion # 3

- Sage
- Scopus
- Other collections:
  - Sage Research Methods
  - Streaming video collections including:
    - Academic Videos Online (Proquest)
    - Curio.ca
  - OED Online
  - Canadian Business & Current Affairs
  - 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:
    - SCOAP<sup>3</sup>
    - arXiv
    - Canadian Patent Database
    - United States Patent and Trademark Office database
    - European Patent Office
    - MEDLINE
  - We also collect extensively on PEI materials (including undergraduate theses), which are accessed through the Special Collections services of the library and online on [islandarchives.ca](https://islandarchives.ca). Full list of resources is available at [https://library.upei.ca/databases\\_all](https://library.upei.ca/databases_all).
- Physical Space in Library (other than collections, explain) – N/A
- Library Administrative/Research Support
  - Physics Liaison Librarian: Mackenzie Johnson

New resources needed to support this proposal: none.

Summary of additional budget allocation required:

- First year startup: \$ 0 in first fiscal year the course/program is offered.
- Additional startup years: \$ 0 in second year, \$ 0 in third year....
- Annual: \$ 0 in addition to the startup figure(s) above starting in the fiscal year AFTER the year the course is first offered
  - Per-year percentage increase in annual: 0

Note that if future budget constraints require the Library to cancel interdisciplinary packages listed above, there will be a loss of resources needed for this course.



**New Course Proposal**

**Motion # 3**

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Date Received by Liaison/Collections Librarian	August 25, 2023
Name of Librarian to be Contacted with Questions	Mackenzie Johnson
Approved by University Librarian or Designate	Donald Moses
Date Approved by UL or Designate	September 12, 2023

Form Version: September 2023

CALENDAR & CURRICULUM CHANGE

Motion # 4

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

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Physics/Minor in Physics**

**MOTION: To have the change in the Requirements for Minor in Physics be approved as proposed.**

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
<p><b>MINOR IN PHYSICS</b></p> <p>Students in the Minor Program in Physics must complete a total of 21 semester hours of Physics including:</p> <p>Physics 1110 – 3 hours            Physics 1120 – 3 hours            Physics 2210 – 3 hours            Four additional Physics courses (12 semester hours) at the 2000 level or above.</p> <p>Students intending to do a Minor in Physics are advised to take Mathematics 1910-1920 instead of 1120.</p>	<p><b>MINOR IN PHYSICS</b></p> <p>Students in the Minor Program in Physics must complete a total of 21 semester hours of Physics including:</p> <ul style="list-style-type: none"> <li>• Physics 1110 <u>Physics for Physical Sciences I</u> – 3 hours</li> <li>• Physics 1120 <u>Physics for Physical Sciences II</u> – 3 hours</li> <li>• Physics 2210 <u>Modern Physics</u> – 3 hours  <del>Four additional Physics courses (12 semester hours) at the 2000 level or above.</del></li> </ul> <p><u>Four additional courses (12 semester hours) from the following list:</u></p> <ul style="list-style-type: none"> <li>• <u>Any physics courses at the 2000 level and above.</u></li> <li>• <u>ENGN 1340 Engineering Mechanics II: Dynamics - 3 hours</u></li> <li>• <u>ENGN 2620: Thermo Fluids II: Fluid Mechanics – 3 hours</u></li> </ul> <p>Students intending to do a Minor in Physics are advised to take Mathematics 1910-1920 instead of <u>Mathematics 1120.</u></p> <p><b><u>(Note: Registration in ENGN courses is limited to students enrolled in the Bachelor of Science Sustainable Design Engineering.)</u></b></p>



**CALENDAR & CURRICULUM CHANGE**

**Motion # 4**

**Rationale for Change:** The added course options will improve the ability for engineering students to complete the Minor in Physics. There is recognition that ENGN 1340 and ENGN 2620 contain relevant applied physics for inclusion in the Minor.

**Effective Term:** WINTER 2024

**Implications for Other Programs:** None.

**Impact on Students Currently Enrolled:** Engineering students will now have an enhanced opportunity to do a Minor in Physics

**Authorization**

**Date:**

Departmental Approval: Derek Lawther (Chair)	August 24, 2023
Faculty/School Approval: Science Council	September 26, 2023
Faculty Dean's Approval: Nola Etkin	September 26, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version: September 2023



**CALENDAR & CURRICULUM CHANGE**

**Motion # 5**

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

Faculty/School/Department: **Science**

Department/Program(s)/Academic Regulations: **Physics/Minor in Medical and Biological Physics**

**MOTION: To have the change in the Requirements for the Minor in Medical and Biological Physics be approved as proposed.**

<b>MINOR IN MEDICAL AND BIOLOGICAL PHYSICS</b>	<b>MINOR IN MEDICAL AND BIOLOGICAL PHYSICS</b>
<p>Students in the Minor Program in Medical and Biological Physics must complete a total of 21 semester hours of course credit, including:</p> <p>Physics 1210 Physics for Life Sciences I or Physics 1110 Physics for Physical Sciences I – 3 hours            Physics 1220 Physics for Life Sciences II or Physics 1120 Physics for Physical Sciences II – 3 hours            Physics 2430 Physics of the Human Body – 3 hours</p> <p>The remaining four electives (12 semester hours) must be chosen from the following suite of courses:</p> <p>Physics 1510 Life in the Universe – 3 hours            Physics 2210 Modern Physics – 3 hours            Physics 2420 Introduction to Biomechanics – 3 hours            Physics 2630 Climate Physics – 3 hours            Physics 3420 Introduction to Medical Physics – 3 hours            Physics 3430 Research Project – 3 hours            Physics 3510 Analysis of Human Movement – 3 hours            Physics 3520 Biomedical Imaging – 3 hours            Physics 3910 Radiation Detection and Measurement – 3 hours            Biology 2260 Human Anatomy and Histology – 3 hours            Biology 4010 Human Physiology &amp; Pathophysiology OR Biology 4020 Comparative &amp; Environmental Vertebrate Physiology but not</p>	<p>Students in the Minor Program in Medical and Biological Physics must complete a total of 21 semester hours of course credit, including:</p> <ul style="list-style-type: none"> <li>• Physics 1210 Physics for Life Sciences I or Physics 1110 Physics for Physical Sciences I – 3 hours</li> <li>• Physics 1220 Physics for Life Sciences II or Physics 1120 Physics for Physical Sciences II – 3 hours</li> <li>• Physics 2430 Physics of the Human Body – 3 hours</li> </ul> <p>Four additional courses (12 semester hours) must be chosen from the following <del>list suite</del> <u>list suite</u> of courses <u>(Note that at least 6 of these semester hours must be physics courses)</u>:</p> <ul style="list-style-type: none"> <li>• Physics 1510 Life in the Universe – 3 hours</li> <li>• Physics 2210 Modern Physics – 3 hours</li> <li>• <u>Physics 2310 Biological Physics of Molecules– 3 hours</u></li> <li>• Physics 2420 Introduction to Biomechanics – 3 hours</li> <li>• Physics 2630 Climate Physics – 3 hours</li> <li>• Physics 3420 Introduction to Medical Physics – 3 hours</li> </ul>

CALENDAR & CURRICULUM CHANGE

Motion # 5

<p>both – 3 hours RAD 2310 Radiographic Physics – 3 hours (available only to students in the Radiography program)</p>	<ul style="list-style-type: none"> <li>• Physics 3430 Research Project – 3 hours</li> <li>• Physics 3510 Analysis of Human Movement – 3 hours</li> <li>• Physics 3520 Biomedical Imaging – 3 hours</li> <li>• Physics 3910 Radiation Detection and Measurement – 3 hours</li> <li>• <u>Physics 4320 Biological Physics of Cells – 3 hours</u></li> <li>• Biology 2260 Human Anatomy and Histology – 3 hours</li> <li>• Biology 4010 Human Physiology &amp; Pathophysiology OR Biology 4020 Comparative &amp; Environmental Vertebrate Physiology but not both – 3 hours</li> <li>• <u>ENGN 3570 Engineering Applications of Biological Materials – 3 hours</u></li> <li>• <u>ENGN 4330 Innovations in Biomedical Materials – 3 hours</u> <u>ENGN 4830 Biomedical Signal Processing – 3 hours</u></li> <li>• RAD 2310 Radiographic Physics – 3 hours (available only to students in the Radiography program)</li> </ul> <p><b><u>(Note: Registration in ENGN courses is limited to students enrolled in the Bachelor of Science Sustainable Design Engineering.)</u></b></p>
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**Rationale for Change:** Physics 2310 and Physics 4320 are new courses which will greatly enhance the options for students wanting to focus more on biological physics within the Minor. Inclusion of the three relevant engineering courses will greatly improve the accessibility of the Minor for engineering students.

**Effective Term:** WINTER 2024

**Implications for Other Programs:** None.

**CALENDAR & CURRICULUM CHANGE**

**Motion # 5**

**Impact on Students Currently Enrolled:** Enhanced course options for, and accessibility to, the Minor

**Authorization**

**Date:**

Departmental Approval: Derek Lawther (Chair)	August 24, 2023
Faculty/School Approval: Science Council	September 26, 2023
Faculty Dean's Approval: Nola Etkin	September 26, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version: September 2023

**CALENDAR & CURRICULUM CHANGE**

**Motion # 6**

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

Faculty/School/Department: **Science**

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

**MOTION: To have the calendar entry for 'Course Requirements for the Areas of Specialization' be approved as proposed.**

<b>COURSE REQUIREMENTS FOR THE AREAS OF SPECIALIZATION</b>	<b>COURSE REQUIREMENTS FOR THE AREAS OF SPECIALIZATION</b>
<p>Students are expected to apply for a particular specialization at the beginning of their second year. However, it is possible for students to declare a specialization until the end of their third year. Please note that Environmental courses taken as part of a specialization requirement can be used to fulfil the Environmental course requirements for the BES.</p>	<p>Students <u>select</u> <del>are expected to apply for a particular specialization at the beginning of their second year. However, it is possible for students to declare a specialization until the end of their third year</del> when they apply to the Bachelor of Environmental Studies program. Students may <u>subsequently change their specialization during their degree subject to course requirements.</u> Please note that Environmental courses taken as part of a specialization requirement can be used to fulfil the Environmental course requirements for the BES.</p>

**Rationale for Change:** Request of the registrar's office due to difficulty in display of Progress Report in online system for those students who have not yet declared a specialization. A note is needed to make students aware of the possibility of changing their specialization.

**Effective Term:** FALL 2024

**Implications for Other Programs:** None.

**Impact on Students Currently Enrolled:** None.

**Authorization**

**Date:**

Departmental Approval: Environmental Studies Steering committee	September 28, 2023
Faculty/School Approval: Science Council	October 10, 2023
Faculty Dean's Approval: Nola Etkin	October 10, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version: September 2023

**CALENDAR & CURRICULUM CHANGE**

**Motion # 7**

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

Faculty/School/Department: **Science**

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

**MOTION: To add a pre-requisite to ENV 2240 Field Course in Ecological Forestry as proposed.**

<p><b>2240 FIELD COURSE IN ECOLOGICAL FORESTRY</b></p> <p>This course introduces students to the principles and practices of ecological forestry management. By combining theory-based lectures and an experiential learning approach at the MacPhail Woods Ecological Forestry site students will gain a deep understanding of the forest and forest restoration efforts.</p> <p>Three semester hours of credit</p>	<p><b>2240 FIELD COURSE IN ECOLOGICAL FORESTRY</b></p> <p>This course introduces students to the principles and practices of ecological forestry management. By combining theory-based lectures and an experiential learning approach at the <u>Macphail</u> <del>MacPhail</del> Woods Ecological Forestry site students will gain a deep understanding of the forest and forest restoration efforts.</p> <p><u>PREREQUISITE: Admission to the Bachelor of Environmental Studies program, declared minor in Environmental Studies or with permission of the instructor.</u></p> <p>Three semester hours of credit</p>
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**Rationale for Change:** Demand for the course is high and adding restrictions will facilitate Environmental Studies majors and minors to take the course.

**Effective Term:** SUMMER 2024

**Implications for Other Programs:** This will limit students from other programs from taking the course.

**Impact on Students Currently Enrolled:** None.

**Authorization**

**Date:**

Departmental Approval: Environmental Studies Steering committee	September 28, 2023
Faculty/School Approval: Science Council	October 10, 2023
Faculty Dean's Approval: Nola Etkin	October 10, 2023
Grad. Studies Dean's Approval:	
Registrar's Office Approval: Darcy McCardle	October 17, 2023

Form Version: September 2023



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**Summary of Motions**  
**Registrar's Office**

#	Type of Motion	Motion
1	Calendar Entry Change	To replace the History (of UPEI) entry in the Academic Calendar

**CALENDAR & CURRICULUM CHANGE**

**Motion # 8**

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

Faculty/School/Department: **Registrar's Office**

Department/Program(s)/Academic Regulations: **History (of UPEI) entry in Academic Calendar**

**MOTION: To replace the History (of UPEI) entry in the Academic Calendar**

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
<p><b>History</b></p> <p>The University of Prince Edward Island is located in Charlottetown, the capital city of the province of Prince Edward Island. Incorporated in 1969 by an Act of the Provincial Legislature, the University has a long-standing tradition of academic excellence dating back to the early 19th century, with roots in its founding institutions, Prince of Wales College (PWC) and Saint Dunstan's University (SDU). UPEI honours this proud legacy through a growing reputation for academic achievement, research innovation, community engagement, and service—locally, nationally, and internationally.</p> <p>Consistently ranked as one of Canada's top primarily undergraduate universities, UPEI offers a wide range of programs and degrees to over 4,400 undergraduate, graduate, and doctoral students from over 65 countries. The University is home to a talented community of educators and researchers including six 3M Teaching Award winners, and several funded research chairs—one a prestigious Canada Excellence Research Chair in Aquatic Epidemiology.</p> <p>The commitment to education as a primary factor in PEI's development can be traced to debates of the colony's earliest legislative council. A particular champion was Lieutenant Governor Edmund Fanning (1786–1805). Fanning actively promoted the view that education was central to the colony's progress, and that it should be seen as a priority, along with the enhancement of agriculture, fisheries, commerce, and population growth. In 1804 he personally donated the land</p>	<p><b>History</b></p> <p>The University of Prince Edward Island is located in Charlottetown, the capital city of the province of Prince Edward Island. Incorporated in 1969 by an Act of the Provincial Legislature, the University has a long-standing tradition of academic excellence dating back to the early 19th century, with roots in its founding institutions, Prince of Wales College (PWC) and Saint Dunstan's University (SDU). UPEI honours this proud legacy through a growing reputation for academic achievement, research innovation, community engagement, and service—locally, nationally, and internationally.</p> <p>Consistently ranked as one of Canada's top primarily undergraduate universities, UPEI offers a wide range of programs and degrees to over 4,400 undergraduate, graduate, and doctoral students from over 65 countries. The University is home to a talented community of educators and researchers including six 3M Teaching Award winners, and several funded research chairs—one a prestigious Canada Excellence Research Chair in Aquatic Epidemiology.</p> <p>The commitment to education as a primary factor in PEI's development can be traced to debates of the colony's earliest legislative council. A particular champion was Lieutenant Governor Edmund Fanning (1786–1805). Fanning actively promoted the view that education was central to the colony's progress, and that it should be seen as a priority, along with the enhancement of agriculture, fisheries, commerce, and population growth. In 1804 he personally donated the land</p>



CALENDAR & CURRICULUM CHANGE

Motion # 8

Reproduction of Current Calendar Entry	Proposed revision with changes underlined and deletions indicated clearly
<p>on which PWC was to stand “for the purpose of laying the foundation of a College thereon.” Kent College, later to become Prince of Wales College, opened in 1820. A related predecessor institution, Central Academy, received a Royal Charter in 1834. In 1860 the Colleges were renamed for the Prince of Wales in honour of the visit of the future King Edward VII.</p> <p>The predecessor of Saint Dunstan’s University, St. Andrew’s College, was founded in 1831 under the leadership of Bishop Angus MacEachern. Saint Dunstan’s College was established in 1855 by Bishop Bernard MacDonald on a large farming property that today is surrounded by the expanding city of Charlottetown. This property, including the historic SDU Main Building, serves as the University of Prince Edward Island campus. The campus consists of 28 academic, administrative, residential, and athletic buildings surrounding a central quadrangle. UPEI is well known for its respectfully maintained historic architecture, complementary modern structures, and red brick, well-manicured appearance.</p> <p>The University’s campus is a reflection of the character of UPEI on many levels—a complementary blend of old and new, of tradition and innovation. Original SDU buildings have been renovated tastefully to retain integrity of design while meeting modern standards, and since 1969, many buildings have been integrated into the campus over the years, including the Central Utility Building (1972), Blanchard Hall (1973), Robertson Library (1975), the Atlantic Veterinary College (1986), the Chi-Wan Young Sports Centre (1990), the Wanda Wyatt Dining Hall (1990), the K.C. Irving Chemistry Centre (1997), the W. A. Murphy Student Centre (2002), Bill and Denise Andrew Hall (2006), Don and Marion McDougall Hall (2008), the Health</p>	<p><del>on which PWC was to stand “for the purpose of laying the foundation of a College thereon.” Kent College, later to become Prince of Wales College, opened in 1820. A related predecessor institution, Central Academy, received a Royal Charter in 1834. In 1860 the Colleges were renamed for the Prince of Wales in honour of the visit of the future King Edward VII.</del></p> <p><del>The predecessor of Saint Dunstan’s University, St. Andrew’s College, was founded in 1831 under the leadership of Bishop Angus MacEachern. Saint Dunstan’s College was established in 1855 by Bishop Bernard MacDonald on a large farming property that today is surrounded by the expanding city of Charlottetown. This property, including the historic SDU Main Building, serves as the University of Prince Edward Island campus. The campus consists of 28 academic, administrative, residential, and athletic buildings surrounding a central quadrangle. UPEI is well known for its respectfully maintained historic architecture, complementary modern structures, and red brick, well-manicured appearance.</del></p> <p><del>The University’s campus is a reflection of the character of UPEI on many levels—a complementary blend of old and new, of tradition and innovation. Original SDU buildings have been renovated tastefully to retain integrity of design while meeting modern standards, and since 1969, many buildings have been integrated into the campus over the years, including the Central Utility Building (1972), Blanchard Hall (1973), Robertson Library (1975), the Atlantic Veterinary College (1986), the Chi-Wan Young Sports Centre (1990), the Wanda Wyatt Dining Hall (1990), the</del></p>



CALENDAR & CURRICULUM CHANGE

Motion # 8

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
<p>Sciences Building (2012), and the School of Sustainable Design Engineering (2016).</p> <p>The depth of UPEI’s academic heritage is reflected not only in the buildings and scholarships named in honour of education pioneers and benefactors, but also in personal, day-to-day connections. Graduates of SDU, PWC, and UPEI teach at the University, children of current and former faculty and staff attend UPEI, and many families proudly report multi-generational alumni connections to the institution. These connections span the globe. The University has a long history of welcoming students from outside the province and country. In 2016 international students from over 65 countries attend UPEI, comprising 21 per cent of the University’s student body. Over 24,000 alumni of UPEI, SDU, and PWC—whether in Prince Edward Island, elsewhere in Canada, or abroad—maintain a close sense of connection with their University.</p> <p>UPEI has seen important developments in its programming over the past 47 years. The Faculty of Veterinary Medicine and the schools of Business Administration (now known as the School of Business) and Nursing were added as the University expanded. Both within the Faculty of Science, a School of Sustainable Design Engineering was added in 2014 and a School of Mathematical and Computational Sciences in 2016. Bachelors’ programs, in many cases including honours options, are available in Arts, Science, Business Administration, Education, and Nursing. Master and doctoral degree programs were first introduced through the Atlantic Veterinary College, and, beginning in 1999, a Master of Science degree was offered through the Faculty of Science. In that same year, the first students were admitted to the University’s new Master of Education program. Programs added since 1999 include Master of Arts in 2003; Master of Applied Health Services</p>	<p><del>K.C. Irving Chemistry Centre (1997), the W. A. Murphy Student Centre (2002), Bill and Denise Andrew Hall (2006), Don and Marion McDougall Hall (2008), the Health Sciences Building (2012), and the School of Sustainable Design Engineering (2016).</del></p> <p><del>The depth of UPEI’s academic heritage is reflected not only in the buildings and scholarships named in honour of education pioneers and benefactors, but also in personal, day to day connections. Graduates of SDU, PWC, and UPEI teach at the University, children of current and former faculty and staff attend UPEI, and many families proudly report multi-generational alumni connections to the institution. These connections span the globe. The University has a long history of welcoming students from outside the province and country. In 2016 international students from over 65 countries attend UPEI, comprising 21 per cent of the University’s student body. Over 24,000 alumni of UPEI, SDU, and PWC—whether in Prince Edward Island, elsewhere in Canada, or abroad—maintain a close sense of connection with their University.</del></p> <p><del>UPEI has seen important developments in its programming over the past 47 years. The Faculty of Veterinary Medicine and the schools of Business Administration (now known as the School of Business) and Nursing were added as the University expanded. Both within the Faculty of Science, a School of Sustainable Design Engineering was added in 2014 and a School of Mathematical and Computational Sciences in 2016. Bachelors’ programs, in many cases including honours options, are available in Arts,</del></p>

CALENDAR & CURRICULUM CHANGE

Motion # 8

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
<p>Research in 2004; Bachelor of Integrated Studies and Master of Business Administration in 2008; Bachelor of Business Studies and PhD in Educational Studies in 2009; Bachelor of Wildlife Conservation, Bachelor of Science in Kinesiology, and Master of Nursing in 2010; PhD in Molecular and Macromolecular Sciences and PhD in Environmental Sciences in 2012; one-year Bachelor of Education in 2013; Bachelor of Science in Sustainable Design Engineering in 2014; and Bachelor of Science in Paramedicine in 2016. Co-operative education programs are available in Applied Human Sciences, Biology, Business Administration, Chemistry, Environmental Studies, Math &amp; Computational Sciences, and Physics.</p> <p>Underlying the University's programs and activities is a commitment to rigorous study and inquiry, belief in the value of knowledge, lifelong capacity-building, and the development of the whole person—along with a sense of community at UPEI and in its local, regional, national, and international contexts. Faculty in all disciplines produce research and scholarly works of national and international calibre, while continuing to give priority to UPEI's well-earned reputation for high-quality teaching characterized by individual attention.</p>	<p><del>Science, Business Administration, Education, and Nursing. Master and doctoral degree programs were first introduced through the Atlantic Veterinary College, and, beginning in 1999, a Master of Science degree was offered through the Faculty of Science. In that same year, the first students were admitted to the University's new Master of Education program. Programs added since 1999 include Master of Arts in 2003; Master of Applied Health Services Research in 2004; Bachelor of Integrated Studies and Master of Business Administration in 2008; Bachelor of Business Studies and PhD in Educational Studies in 2009; Bachelor of Wildlife Conservation, Bachelor of Science in Kinesiology, and Master of Nursing in 2010; PhD in Molecular and Macromolecular Sciences and PhD in Environmental Sciences in 2012; one-year Bachelor of Education in 2013; Bachelor of Science in Sustainable Design Engineering in 2014; and Bachelor of Science in Paramedicine in 2016. Co-operative education programs are available in Applied Human Sciences, Biology, Business Administration, Chemistry, Environmental Studies, Math &amp; Computational Sciences, and Physics.</del></p> <p>Underlying the University's programs and activities is a commitment to rigorous study and inquiry, belief in the value of knowledge, lifelong capacity-building, and the development of the whole person—along with a sense of community at UPEI and in its local, regional, national, and international contexts. Faculty in all disciplines produce research and scholarly works of national and international calibre, while continuing to give priority to UPEI's well-earned reputation for high-</p>

CALENDAR & CURRICULUM CHANGE

Motion # 8

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
	<p><del>quality teaching characterized by individual attention.</del></p> <p><b>History</b></p> <p><u>The University of Prince Edward Island recognizes and acknowledges our location on the unceded, ancestral lands of the Mi'kmaq People, in their traditional and current territory of Mi'kma'ki.</u></p> <p><u>Education is a key component of the Truth and Reconciliation Commission of Canada's Calls to Action. UPEI is committed to advancing reconciliation through higher education, and our establishment of the <a href="#">UPEI Faculty of Indigenous Knowledge, Education, Research, and Applied Studies</a> in 2021 is an important step. As a community, we have started a journey of growth to realize the role we must play in promoting an understanding of Indigenous history and culture and supporting respectful relationships. Their history is our history.</u></p> <p><u>The University of Prince Edward Island has a long-standing tradition of academic excellence dating back to the early 19<sup>th</sup> century, with roots in its founding institutions: Prince of Wales College (est. 1834) and Saint Dunstan's University (est. 1855). UPEI values its heritage and proudly embodies historic symbols of SDU and PWC in positions of honour within the shield that anchors the <a href="#">University's official coat of arms</a>, and on its <a href="#">flag</a>.</u></p> <p><b>The Early Years</b></p> <p><u>Commitment to education as a primary factor in PEI's development can be traced to PEI's earliest legislative council debates. Lieutenant-Governor</u></p>



CALENDAR & CURRICULUM CHANGE

Motion # 8

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
	<p><u>Edmund Fanning (1786–1805) promoted the view that education was central to progress and that it should be seen as a priority, along with the enhancement of agriculture, fisheries, commerce, and population growth.</u></p> <p><u>In 1820, Kent College School opened in Charlottetown, and a larger building known as the Central Academy was constructed from 1834 to 1836 near the corners of Kent Street and Weymouth Street. Central Academy provided Island youth with "educational qualification enabling them to take their place in the various professions and vocations of life with advantage to society and honour and credit to themselves."</u> A teacher training institution called the Normal School opened in 1856.</p> <p><u>Central Academy was upgraded in 1860 and renamed Prince of Wales College, in honour of the visit of His Royal Highness Edward Prince of Wales, later King Edward VII. In 1879, the College became co-educational, and the Normal School became part of it. In 1965, Prince of Wales College was elevated to university status.</u></p> <p><u>Saint Dunstan’s University was founded by the Roman Catholic Diocese of Charlottetown to educate lay leaders for Catholic society and young men who wished to enter a seminary. St. Andrew’s College, which preceded SDU, was founded in 1831 under the leadership of Bishop Angus MacEachern. Saint Dunstan’s College was established in 1855 by Bishop Bernard MacDonald on the property that today serves as the UPEI campus. The College received a provincial degree-granting charter in 1917 but did</u></p>

CALENDAR & CURRICULUM CHANGE

Motion # 8

<u>Reproduction of Current Calendar Entry</u>	<u>Proposed revision with changes underlined and deletions indicated clearly</u>
	<p><u>not award its first bachelor's degrees until the spring of 1941.</u></p> <p><u>Starting in 1892, SDU was affiliated with Université Laval, awarding joint degrees, but following the decision to start granting its own degrees, SDU had severed its relationship with Laval by 1956. By the mid-20th century, the College had expanded into a small liberal arts university, having become co-educational in 1942.</u></p> <p><u>In 1969, the Government of Prince Edward Island, under the leadership of Premier Alex B. Campbell, passed the University Act, which led to the creation of one university for the province. In September of that year, the University of Prince Edward Island welcomed its first students.</u></p> <p><b><u>The Provincial University</u></b></p> <p><u>The University's Charlottetown campus reflects the character of UPEI on many levels—a complementary blend of old and new, of tradition and innovation. Original SDU buildings have been renovated tastefully to retain the integrity of design while meeting modern standards, and many new <u>academic, administrative, and residence buildings</u> have been integrated into the UPEI campus.</u></p> <p><u>The depth of UPEI's academic heritage is reflected in the buildings and scholarships named in honour of education pioneers and benefactors and in personal, day-to-day connections. Graduates of SDU and PWC taught at UPEI, children and grandchildren of former faculty and staff attended the University, and many families</u></p>



CALENDAR & CURRICULUM CHANGE

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	<p><u>proudly continue to report multi-generational alumni connections to the institution.</u></p> <p><u>The University has a long history of welcoming international students, and many graduates remain actively engaged with UPEI as part of the local community or networked through professional and collegial worldwide relationships. <a href="#">Alumni of UPEI, SDU, and PWC</a>—now numbering more than 30,000—whether in Prince Edward Island, elsewhere in Canada, or abroad—maintain a close sense of connection with their University.</u></p> <p><b><u>UPEI: Fifty Years and Beyond</u></b></p> <p><u>In 2019, UPEI <a href="#">celebrated its 50<sup>th</sup> anniversary</a> and showcased the many important developments in its academic and research programs over its five decades.</u></p> <p><u>Since then, the University has continued to grow its academic programming, adding <a href="#">undergraduate and graduate programs, faculties, and schools</a> to meet the ever-changing demands of industry and society. UPEI has expanded beyond the Charlottetown campus, opening the <a href="#">UPEI Cairo Campus</a> in Egypt in 2018, and the <a href="#">Canadian Centre for Climate Change and Adaptation</a> in St. Peters Bay, PEI in 2022.</u></p> <p><u>Underlying the University’s programs and activities is a commitment to rigorous study and inquiry, belief in the value of knowledge, lifelong capacity-building, and the development of the whole person—along with a sense of community at UPEI and in its local, regional, national, and international contexts. Faculty in all disciplines produce research and scholarly works of national</u></p>



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	<u>and international calibre while prioritizing UPEI's well-earned reputation for high-quality teaching characterized by individual attention.</u>

**Rationale for Change:** To refresh this entry and reflect some recent aspects of the University's history.

**Effective Term:** WINTER 2024

**Implications for Other Programs:** None.

**Impact on Students Currently Enrolled:** None.

***Authorization***

***Date:***

Departmental Approval: Click here to enter name of approver.	Click here to select approval date.
Faculty/School Approval: <a href="#">Click here to enter name of approver.</a>	<a href="#">Click here to select approval date.</a>
Faculty Dean's Approval: <a href="#">Click here to enter name of approver.</a>	<a href="#">Click here to select approval date.</a>
Grad. Studies Dean's Approval: <a href="#">Click here to enter name of approver.</a>	<a href="#">Click here to select approval date.</a>
Registrar's Office Approval: Darcy McCardle	September 19, 2023

Form Version: September 2023