

- GSJ380 - Applied Public Health Ethics (0.50)
- HLTH380 - Applied Public Health Ethics (0.50)
- Complete 1 of the following:
 - BIOL201 - Human Anatomy (0.50)
 - BIOL240 - Fundamentals of Microbiology (0.50)
 - BIOL302 - Functional Histology (0.50)
 - BIOL308 - Principles of Molecular Biology (0.50)
 - BIOL355 - Biology of Human Aging (0.50)
 - BIOL376 - Cellular Neurophysiology (0.50)
 - BIOL403 - Developmental Biology and Embryology (0.50)
 - BIOL473 - Mammalian Reproduction (0.50)
 - HLTH290 - An Introduction to Health Neuroscience (0.50)
 - HLTH358 - Social Neuroscience 1: Mental Health and Addiction (0.50)
 - HLTH421 - Nutritional Aspects of Chronic Disease (0.50)
 - HLTH430 - Geriatric Medicine and Health Care (0.50)
 - HLTH458 - Social Neuroscience 2: Lifestyle and Chronic Illness (0.50)
 - HLTH461 - Experimental Methods in Behavioural Neuroscience (0.50)
 - HLTH465 - Epigenetics and Health (0.50)
 - HLTH471 - Neuropharmacology (0.50)
 - KIN100 - Regional Human Anatomy (0.50)
 - KIN146 - Introduction to Human Nutrition (0.50)
 - KIN308 - Cardiovascular and Pulmonary Physiology (0.50)
 - KIN312 - Introduction to Neurological Disorders (0.50)
 - KIN343 - Micronutrient Metabolism (0.50)
 - KIN404 - Physiology of Obesity and Type 2 Diabetes (0.50)
 - KIN406 - Physiology of Muscle Aging and Disease (0.50)
- Complete 1 of the following:
 - HLTH303 - Program Planning and Evaluation (0.50)
 - HLTH344 - Qualitative Methods for Health Research (0.50)
 - HLTH350 - Principles of Occupational Health and Safety (0.50)
 - HLTH433 - Experimental Methods (0.50)
 - HLTH435 - Knowledge Translation for Public Health and Health Care (0.50)
 - HLTH442 - Epidemiology of Non-Communicable Diseases (0.50)
 - HLTH443 - Epidemiology of Communicable Diseases (0.50)
 - HLTH451 - Analysis and Management of Health Information in Aging Populations (0.50)
 - HLTH453 - Computing in Health Informatics (0.50)
 - HLTH455 - Disease Mapping and Geographic Information Systems (0.50)
 - HLTH458 - Social Neuroscience 2: Lifestyle and Chronic Illness (0.50)
 - HLTH461 - Experimental Methods in Behavioural Neuroscience (0.50)
 - HLTH475 - Food and Nutrition Security (0.50)
- Complete 1 of the following:
 - HLTH335 - Introduction to Statistical Analytics in Health (0.50)
 - STAT316 - Introduction to Statistical Problem Solving (0.50)
- Complete 1 of the following:
 - PSYCH101 - Introductory Psychology (0.50)
 - PSYCH101R - Introductory Psychology (0.50)

Grand Total Units: 15.25

Course Requirements (no units) ?

Required Courses

No Rules

Course Lists ?

Required Courses

No Rules

Are there cross-listed courses listed in

Cross-Listings Options ?

requirements?

Yes

All cross-listings to be displayed

Additional Constraints

1. Students may only complete one course from any cross-listed set.
2. A minimum of 10.0 units must be at the 200-level or above.
3. No one course may fulfil more than one requirement within the academic plan.

Notes

- See Faculty of Health for recommended course sequences.
- Joint Honours: Health Sciences students may pursue a joint honours degree with Honours Psychology in the Faculty of Arts. Further information regarding specific course sequences, course or credit requirements, and minimum averages may be obtained from the Associate Director/Chair, Undergraduate Studies for each plan. Students typically declare the Honours Psychology major at the end of first year by completing a Plan Modification Form. Students wishing to pursue a joint honours degree with another plan not listed above should contact the School of Public Health Sciences Associate Director, Undergraduate Studies.

Specializations

Specializations for this Major

Yes - Optional

Specialization Details

Students may choose to focus their elective choices by completing one of two available specializations. Students may declare only one specialization.

Specializations List

- HS-Health Research Specialization, or Pre-Clinical Specialization

Workflow Information

Change to Undergraduate Communication Requirement

No

Workflow Path ⓘ

Committee approvals

Faculty/AFIW Path(s) for Workflow ⓘ

Faculty of Health

Senate Workflow

--

Dependencies

Dependent Courses and Programs/Plans

ANTIREQUISITES

- ✓ HEALTH 100 - Foundations of a Healthy Lifestyle [View Courses >](#)
- ✓ HEALTH 150 - Foundations of Human Anatomy and Physiology [View Courses >](#)

PREREQUISITES

- ✓ HLTH 459 - Social Neurobiology of Eating [View Courses >](#)
- ✓ HLTH 451 - Analysis and Management of Health Information in Aging Populations [View Courses >](#)
- ✓ HLTH 452 - Decision Making and Decision Support in Health Informatics [View Courses >](#)
- ✓ HLTH 455 - Disease Mapping and Geographic Information Systems [View Courses >](#)
- ✓ HLTH 173 - Contemporary Issues in Health 1 [View Courses >](#)
- ✓ HLTH 202 - Principles of Public and Population Health [View Courses >](#)
- ✓ HLTH 204 - Quantitative Approaches to Health Science [View Courses >](#)
- ✓ HLTH 205 - Introduction to Health Research [View Courses >](#)
- ✓ HLTH 273 - Contemporary Issues in Health 2 [View Courses >](#)
- ✓ HLTH 335 - Introduction to Statistical Analytics in Health [View Courses >](#)
- ✓ HLTH 344 - Qualitative Methods for Health Research [View Courses >](#)
- ✓ HLTH 373 - Contemporary Issues in Health 3 [View Courses >](#)
- ✓ HLTH 400 - Interdisciplinary Perspectives on Aging [View Courses >](#)
- ✓ HLTH 427 - Dementia Care [View Courses >](#)
- ✓ HLTH 430 - Geriatric Medicine and Health Care [View Courses >](#)
- ✓ HLTH 433 - Experimental Methods [View Courses >](#)
- ✓ HLTH 442 - Epidemiology of Non-Communicable Diseases [View Courses >](#)
- ✓ HLTH 443 - Epidemiology of Communicable Diseases [View Courses >](#)
- ✓ HLTH 448 - Advanced Studies in Social Determinants of Health [View Courses >](#)
- ✓ HLTH 450 - Gender, Sex, and Health [View Courses >](#)
- ✓ HLTH 473 - Contemporary Issues in Health 4 [View Courses >](#)
- ✓ HLTH 474 - Health Apprenticeship [View Courses >](#)
- ✓ HLTH 104 - Introduction to Health Data Science [View Courses >](#)
- ✓ HLTH 449 - Substance use in Contemporary Society [View Courses >](#)
- ✓ HLTH 480 - Competencies in Health [View Courses >](#)
- ✓ HLTH 475 - Food and Nutrition Security [View Courses >](#)
- ✓ HLTH 472 - Independent Study [View Courses >](#)
- ✓ HLTH 432A - Honours Thesis (A) [View Courses >](#)

SPECIALIZATION IS AVAILABLE FOR STUDENTS IN THE FOLLOWING MAJORS

- ✓ HS-Health Research Specialization - Health Research Specialization [View Programs >](#)
- ✓ Pre-Clinical Specialization - Pre-Clinical Specialization [View Programs >](#)

H-Public Health Public Health (Bachelor of Public Health - Honours)

Under Review | Fall 2026

Proposal Information

Status

Active

Workflow Status

In Progress

SUC Subcommittee, SUC Curricular Subcommittee

expand ▲

Waiting for Approval | Approval Delegate(s)

Tim Weber-Kraljevski

Mike Grivicic

Diana Goncalves

Kuali - Arts

Kuali - Env

Melanie Figueiredo

Kuali - Math

Kuali - Eng

Kuali - Hlth

Ashley Day

Kuali - Science

Changes

- Graduation Requirements
- participants
- Effective Term and Year

Effective Date and Career

Career

Undergraduate

Important! ⓘ

Proposed

Effective Term and Year ⓘ

Fall 2026

Existing

Effective Term and Year ⓘ

Fall 2025

Proposal Details

Proposal Type ⓘ

Change

Academic Unit Approval

03/24/2025

Quality Assurance Designation ⓘ

Minor Modification

Is there an impact to existing students? ⓘ

No

Is the credential name changing?

No

Co-operative System of Study and Requirements

No

Creating or Changing Invalid Combinations

No

Change to Learning Outcomes

No

Rationale and Background for Change(s)

The graduation requirements are being revised to add the constraint that a failed second attempt of a required course will result in withdrawal from the academic plan. This new requirement mirrors several other programs, such as biomedical sciences and biology. This new requirement will ensure that students are properly progressing through their program and completing required 1st and 2nd-year pre-requisite courses before their 3rd and 4th years. Without this requirement, there have been 3rd and 4th-year students who have still not completed required courses from 1st and 2nd year such as PSYCH101 and HLTH204. This creates scheduling conflicts and delays in graduation. Adding this new requirement will ensure students are successful in progressing through their program and, if not, students will be prompted to start exploring other more appropriate options before they get into their 3rd and 4th years.

Consultations (Departmental)

Supporting Documentation

General Program/Plan Information

Faculty

Faculty of Health

Academic Unit

School of Public Health Sciences

Field of Study

Public Health

Faculty

Faculty of Health

Undergraduate Credential Type

Major

Program Type

Honours

Degree

Bachelor of Public Health

Program/Plan Name

Public Health (Bachelor of Public Health - Honours)

Systems of Study

Co-operative
Regular

Online Degree/Diploma

Admissions

Admissions Entry Point

Direct Entry

Admission Requirements: Minimum Requirements

Requirements Information

Invalid Combinations ⓘ

No

Average Requirement ⓘ

Yes

Minimum Average(s) Required ⓘ

- A minimum cumulative overall average of 70.0%.
- A minimum cumulative major average of 75.0%.

Proposed

Graduation Requirements ?

Unit Requirements

- Complete a total of 20.0 units:
 - 14.5 units of required courses.
 - 5.5 units of elective courses.
- A failed second attempt of a required course will result in the requirement to withdraw from this academic plan. Readmission requires a successful petition.

Time to Completion

- Students must successfully complete all degree requirements within eight calendar years from the time students first enter their plan.
 - Students admitted with the equivalent of one year advanced standing must complete the degree requirements in seven calendar years of entry into the plan.
 - Students admitted with the equivalent of two years of advanced standing must complete the degree requirements in six calendar years of entry into the plan.

Undergraduate Communication Requirement

Students are required to complete one course to meet the Undergraduate Communication Requirement: HEALTH107.

Notes

1. Students enrolled in the Faculty of Health before September 2017 should consult the English Language Proficiency Requirement described in the Calendar of their entry year.
2. Successful completion of the Undergraduate Communication Requirement will be recorded on a student's transcript as completion of the Undergraduate Communication Requirement.
3. Students transferring to another faculty should note that additional courses may be required to satisfy the other faculty's Undergraduate Communication Requirement.
4. Students transferring into the Faculty of Health who have completed their Undergraduate Communication Requirement in another faculty at the University of Waterloo will be eligible to have it count for their Faculty of Health Undergraduate Communication Requirement.
5. The Faculty of Health does not permit external transfer credits for HEALTH107 from students transferring from another institution. HEALTH107 must be taken at the University of Waterloo to satisfy the Faculty of Health's Undergraduate Communication Requirement.

Existing

Graduation Requirements ?

Unit Requirements

- Complete a total of 20.0 units:
 - 14.5 units of required courses.
 - 5.5 units of elective courses.

Time to Completion

- Students must successfully complete all degree requirements within eight calendar years from the time students first enter their plan.
 - Students admitted with the equivalent of one year advanced standing must complete the degree requirements in seven calendar years of entry into the plan.
 - Students admitted with the equivalent of two years of advanced standing must complete the degree requirements in six calendar years of entry into the plan.

Undergraduate Communication Requirement

Students are required to complete one course to meet the Undergraduate Communication Requirement: HEALTH107.

Notes

1. Students enrolled in the Faculty of Health before September 2017 should consult the English Language Proficiency Requirement described in the Calendar of their entry year.
2. Successful completion of the Undergraduate Communication Requirement will be recorded on a student's transcript as completion of the Undergraduate Communication Requirement.
3. Students transferring to another faculty should note that additional courses may be required to satisfy the other faculty's Undergraduate Communication Requirement.
4. Students transferring into the Faculty of Health who have completed their Undergraduate Communication Requirement in another faculty at the University of Waterloo will be eligible to have it count for their Faculty of Health Undergraduate Communication Requirement.
5. The Faculty of Health does not permit external transfer credits for HEALTH107 from students transferring from another institution. HEALTH107 must be taken at the University of Waterloo to satisfy the Faculty of Health's Undergraduate Communication Requirement.

Co-operative Education Program Requirements ⓘ

- 1. Complete a minimum of four credited work terms:
 - 1. A minimum of three must be standard work terms.
- 2. Complete a minimum of four Professional Development (PD) courses:
 - 1. PD1: Must be taken in an academic term prior to the first work term.
 - 2. PD12: Must be taken during the first work term.
- 3. Two additional PD courses: To be taken during the second, third, or fourth work terms.

Additional Constraints and Notes

- 1. The co-op program is only open to full-time students.
- 2. The co-op program is not open to students seeking to complete a second degree.
- 3. Students will be removed from their co-op program in the following situations:
 - 1. Failure to successfully meet academic program requirements, including minimum averages;
 - 2. Two unemployed or failed work-term opportunities.
- 4. Normally, students who are removed from co-op will not be re-admitted into the co-op program.
- 5. See the table below for the sequencing of academic and work terms.

Legend for Study/Work Sequence Chart

Key	Description
F,W,S	Terms: F=September-December; W=January-April; S=May-August
1,2,3,4 plus A or B	Academic year and term.
WT	Scheduled work term.
off	Neither an academic term nor a work term.

Study/Work Sequence Chart

F	W	S	F	W	S	F	W	S	F	W	S	F	W
1A	1B	off	2A	WT	2B	WT	3A	WT	3B	WT	WT	4A	4B

Course Requirements (units) ⓘ

Required Courses

0

Units to Complete

No Rules

Course Requirements (no units) ⓘ

Required Courses

- Complete all of the following
 - Complete all the following:
 - HEALTH107 - Sociology of Activity, Health, and Well-Being (0.50)
 - HEALTH150 - Foundations of Human Anatomy and Physiology (0.50)
 - HLTH101 - Introduction to Health 1 (0.50)
 - HLTH102 - Introduction to Health 2 (0.50)
 - HLTH103 - Biological Determinants of Health (0.50)
 - HLTH104 - Introduction to Health Data Science (0.50)
 - HLTH202 - Principles of Public and Population Health (0.50)
 - HLTH204 - Quantitative Approaches to Health Science (0.50)
 - HLTH205 - Introduction to Health Research (0.50)
 - HLTH230 - Introduction to Health Informatics (0.50)
 - HLTH260 - Social Determinants of Health (0.50)
 - HLTH301 - Applied Health Promotion: Theory and Community Engagement (0.50)
 - HLTH303 - Program Planning and Evaluation (0.50)
 - HLTH333 - Principles of Epidemiology (0.50)
 - HLTH355 - Public Health Nutrition (0.50)
 - HLTH370 - Ecological Determinants of Health (0.50)
 - HLTH401 - Global Health (0.50)
 - HLTH410 - Health Policy (0.50)
 - Complete 1 of the following:
 - ENGL109 - Introduction to Academic Writing (0.50)

- ENGL140R - The Use of English (0.50)
- ENGL210C - Genres of Creative Writing (0.50)
- ENGL210E - Genres of Technical Communication (0.50)
- ENGL210F - Genres of Business Communication (0.50)
- ENGL210G - Genres of Fundraising Communication (0.50)
- ENGL210H - Arts Writing (0.50)
- ENGL210I - Legal Writing (0.50)
- ENGL210J - Technical Editing (0.50)
- Complete 1 of the following:
 - GERON201 - Aging and Health (0.50)
 - HLTH201 - Aging and Health (0.50)
- Complete 1 of the following:
 - GERON220 - Psychosocial Perspectives on Lifespan Development and Health (0.50)
 - HLTH220 - Psychosocial Perspectives on Lifespan Development and Health (0.50)
- Complete 1 of the following:
 - GERON245 - Canadian Health Systems (0.50)
 - HLTH245 - Canadian Health Systems (0.50)
- Complete 1 of the following:
 - GSJ380 - Applied Public Health Ethics (0.50)
 - HLTH380 - Applied Public Health Ethics (0.50)
- Complete 1 of the following:
 - HLTH335 - Introduction to Statistical Analytics in Health (0.50)
 - STAT316 - Introduction to Statistical Problem Solving (0.50)
- Complete 1 of the following:
 - HLTH344 - Qualitative Methods for Health Research (0.50)
 - HLTH350 - Principles of Occupational Health and Safety (0.50)
 - HLTH433 - Experimental Methods (0.50)
 - HLTH435 - Knowledge Translation for Public Health and Health Care (0.50)
 - HLTH442 - Epidemiology of Non-Communicable Diseases (0.50)
 - HLTH443 - Epidemiology of Communicable Diseases (0.50)
 - HLTH451 - Analysis and Management of Health Information in Aging Populations (0.50)
 - HLTH453 - Computing in Health Informatics (0.50)
 - HLTH455 - Disease Mapping and Geographic Information Systems (0.50)
 - HLTH458 - Social Neuroscience 2: Lifestyle and Chronic Illness (0.50)
 - HLTH475 - Food and Nutrition Security (0.50)
- Complete 1 of the following:
 - HLTH403 - Global Health Innovation (0.50)
 - HLTH421 - Nutritional Aspects of Chronic Disease (0.50)
 - HLTH427 - Dementia Care (0.50)
 - HLTH430 - Geriatric Medicine and Health Care (0.50)
 - HLTH432A - Honours Thesis (A) (0.50)
 - HLTH432B - Honours Thesis (B) (0.50)
 - HLTH448 - Advanced Studies in Social Determinants of Health (0.50)
 - HLTH449 - Substance use in Contemporary Society (0.50)
 - HLTH450 - Gender, Sex, and Health (0.50)
 - HLTH454 - Information Visualization (0.50)
 - HLTH472 - Independent Study (0.50)
 - HLTH474 - Health Apprenticeship (0.50)
 - HLTH479 - Child Mental Health Epidemiology (0.50)
 - HLTH481 - Community Learning Project (0.50)
- Complete 1 of the following:
 - PSYCH101 - Introductory Psychology (0.50)
 - PSYCH101R - Introductory Psychology (0.50)
- Complete 1 course from the following subject codes: ANTH, ECON, PSCI, PSYCH, SDS, SMF, SOC
- Complete 1 course from the following subject codes: CLAS, ENGL, HIST, MEDVL, PACS, PHIL, RS

Course Lists

Required Courses

No Rules

Are there cross-listed courses listed in requirements?
Yes

Cross-Listings Options
All cross-listings to be displayed

- Additional Constraints**
- 1. Students may only complete one course from any cross-listed set.
 - 2. A minimum of 10.0 units must be at the 200-level or above.
 - 3. Students may take only one of HLTH335 or STAT316.
 - 4. No one course may fulfil more than one requirement within the academic plan.

- Notes**
- See Faculty of Health for recommended course sequences.

Specializations

Specializations for this Major
Yes - Optional

Specialization Details
Students may choose to focus their elective choices by completing the available specialization.

- Specializations List**
- PH-Health Research Specialization

Workflow Information

Change to Undergraduate Communication Requirement

No

Workflow Path ⓘ

Committee approvals

Faculty/AFIW Path(s) for Workflow ⓘ

Faculty of Health

Senate Workflow

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Dependencies

Dependent Courses and Programs/Plans

ANTIREQUISITES

✓ HEALTH 100 - Foundations of a Healthy Lifestyle

[View Courses](#) >

PREREQUISITES

✓ HLTH 481 - Community Learning Project

[View Courses](#) >

✓ HLTH 451 - Analysis and Management of Health Information in Aging Populations

[View Courses](#) >

✓ HLTH 452 - Decision Making and Decision Support in Health Informatics

[View Courses](#) >

✓ HLTH 455 - Disease Mapping and Geographic Information Systems

[View Courses](#) >

✓ HLTH 173 - Contemporary Issues in Health 1

[View Courses](#) >

✓ HLTH 202 - Principles of Public and Population Health

[View Courses](#) >

✓ HLTH 204 - Quantitative Approaches to Health Science

[View Courses](#) >

✓ HLTH 205 - Introduction to Health Research

[View Courses](#) >

✓ HLTH 273 - Contemporary Issues in Health 2

[View Courses](#) >

✓ HLTH 335 - Introduction to Statistical Analytics in Health

[View Courses](#) >

✓ HLTH 344 - Qualitative Methods for Health Research

[View Courses](#) >

✓ HLTH 373 - Contemporary Issues in Health 3

[View Courses](#) >

✓ HLTH 400 - Interdisciplinary Perspectives on Aging

[View Courses](#) >

✓ HLTH 427 - Dementia Care

[View Courses](#) >

✓ HLTH 430 - Geriatric Medicine and Health Care

[View Courses](#) >

✓ HLTH 433 - Experimental Methods

[View Courses](#) >

✓ HLTH 442 - Epidemiology of Non-Communicable Diseases

[View Courses](#) >

✓ HLTH 443 - Epidemiology of Communicable Diseases

[View Courses](#) >

✓ HLTH 448 - Advanced Studies in Social Determinants of Health

[View Courses](#) >

✓ HLTH 450 - Gender, Sex, and Health

[View Courses](#) >

✓ HLTH 473 - Contemporary Issues in Health 4

[View Courses](#) >

✓ HLTH 474 - Health Apprenticeship

[View Courses](#) >

✓ HLTH 104 - Introduction to Health Data Science

[View Courses](#) >

✓ HLTH 449 - Substance use in Contemporary Society

[View Courses](#) >

✓ HLTH 475 - Food and Nutrition Security

[View Courses](#) >

✓ HLTH 472 - Independent Study

[View Courses](#) >

✓ HLTH 432A - Honours Thesis (A)

[View Courses](#) >

SPECIALIZATION IS AVAILABLE FOR STUDENTS IN THE FOLLOWING MAJORS

✓ PH-Health Research Specialization - Health Research Specialization

[View Programs](#) >

SUC - 2025-09 - Consent Agenda (1 of 2) - Faculty of Science

Meeting Information

Agenda Page Title ⓘ

SUC - 2025-09 - Consent Agenda (1 of 2) - Faculty of Science

Career Level	Faculty/Unit
Undergraduate	Science

Date	Time	Location
09/30/2025		

Summary

Motion: To revert the 2023, 2024 Science and Business plans as well as all incoming 2025 Science and Business cohorts, to follow the Science elective requirements outlined in the 2022 Calendar.

Plans (Regular and Co-operative):

- Science and Business
- Science and Business, Biology Specialization
- Science and Business, Biochemistry Specialization
- Science and Business, Biotechnology Specialization

Background and Rationale:

Before Fall 2023, the 400-level science requirement for all Science and Business plans, except for the Biotechnology Specialization, was 0.5 unit, with 1.0 unit required for Biotechnology Specialization plans. An approved motion (September 2022 SUC) changed these minimum values and set them to 2.5 units for all Science and Business plans. This was undertaken to align the Science and Business plans with the requirements for Biology, Chemistry, Physics, and Earth majors.

In discussions with Associate Chair from Biology as well as program advisors, the students were struggling to find 400-level courses where they had the appropriate prerequisites, leading to instructors receiving many requests to override the prerequisites. Recent changes in retired or offered courses have reduced the number of choices of 400-level courses with few prerequisites. Having a significant number of students override prerequisites not only places the Science and Business students at a disadvantage, but in some cases impacts how the content is presented, discussed or assessed.

With the students following the Fall 2023 Calendar now preparing their choices for 400-level courses, these students are reaching out to advisors to find a sufficient number of 400-level courses for which they could meet prerequisites. For all departments, 2.5 units at the 400-level would require that the Science and Business students meticulously plan their courses from the 1A term, following the paths set for the Honours Biology, Chemistry, Physics or Earth students to be well prepared with the needed prerequisites.

The return to the Fall 2022 Calendar requirements, for the Fall 2023, 2024 and 2025 cohorts, without changing the total required Science units would provide students within all Science and Business plans greater flexibility. Students would still have the capacity and opportunity to take more than the minimum number of 400-level courses in any field. The proposed change will make the planning for science elective courses more manageable, allowing students to tailor their education to their interests and career goals.

Consultation with the Registrar’s office regarding this retroactive motion for 2023 and 2024 Calendars, in addition to the motion for the current live 2025 Calendar, have been discussed. Only the 2025 Calendar will show amendments. A communication plan will be implemented for 2023, 2024, and incoming 2025 cohorts.

Timeline for communication and implementation of Science and Business program changes/amendment:

May 2025	<p>All students in Science and Business programs received an email notifying them about their updated advising contact, Luke Balch. These students have already commented on the service-level, responsiveness improvements they’ve observed with this change. The goal here was to lay groundwork for relationships and communication with students, which has also included some of their feedback and concerns.</p>
June 2025	<p>Science Undergrad Studies Committee (SUSC) consideration for a revision in requirements for the 2023-24, 2024-25 [no change to Calendar document], and 2025-26 [Calendar amendment proposal]. See attached rationale and line-by-line text changes. If approved at SUSC, it will proceed to the Science Faculty Council for consideration.</p> <p>If approved by SUC subcommittee, the following webpages will be updated noting the requirement changes and will remain in draft until September.</p> <p>Recommended course sequences pages to be updated:</p> <p>2023-24</p> <p>2024-25</p> <p>2025-26</p>
July/August 2025	<p>Program outlines checklists to be updated:</p> <p>2023-24</p> <p>2024-25</p> <p>Note, these program outline pages will be decommissioned, and resources will be updated and moved to the Office 365 resource for degree planning tools.</p> <p>Science and Business webpages to be updated:</p> <p>Current students and Academic advisors – will feature summary of changes</p>
September 2025	<p>Students will receive an email from the advisor indicating the changes and the links to the above pages.</p>
November 2025	<p>On or about November 12, students who did not participate in course selection would receive an email from the advisor outlining changes and reminding students of the links to the information.</p>

Other Business

Attachment(s)

Course Proposals

Course Proposal Details

Courses: Retire

No proposals have been added.

Courses: New

No proposals have been added.

Courses: Changes

No proposals have been added.

Programs & Plans Proposals

Programs & Plans Proposal Details

Plans (Regular and Co-operative):

- Science and Business
- Science and Business, Biology Specialization
- Science and Business, Biochemistry Specialization
- Science and Business, Biotechnology Specialization

Programs & Plans: Retire

No proposals have been added.

Programs & Plans: Major Modifications

No proposals have been added.

Programs & Plans: Minor Modifications

Code	Title	Type	Workflow Step	
H-Science & Business	Science and Business (Bachelor of Science - Honours)	Program	SUC Subcommittee, SUC Curricular Subcommittee Under Review	
H-Science & Business - Biology Specialization	Science and Business - Biology Specialization (Bachelor of Science - Honours)	Program	SUC Subcommittee, SUC Curricular Subcommittee Under Review	
H-Science & Business - Biochemistry Specialization	Science and Business - Biochemistry Specialization (Bachelor of Science - Honours)	Program	SUC Subcommittee, SUC Curricular Subcommittee Under Review	

Code	Title	Type	Workflow Step
H-Science & Business - Biotechnology Specialization	Science and Business - Biotechnology Specialization (Bachelor of Science - Honours)	Program	SUC Subcommittee, SUC Curricular Subcommittee Under Review

Regulations Proposals

Regulations Proposal Details

Regulations: Retire

No proposals have been added.

Regulations: New

No proposals have been added.

Regulations: Changes

No proposals have been added.

H-Science & Business Science and Business (Bachelor of Science - Honours)

Revision | Under Review | Fall 2025

Proposal Information

Workflow Status

In Progress

SUC Subcommittee, SUC Curricular Subcommittee

expand ▲

Waiting for Approval | Approval Delegate(s)

- Tim Weber-Kraljevski
- Diana Goncalves
- Kuali - Arts
- Kuali - Env
- Melanie Figueiredo
- Kuali - Math
- Kuali - Eng
- Kuali - Hlth
- Ashley Day
- Kuali - Science

Changes

- Graduation Requirements

Effective Date and Career

Career

Undergraduate

Important! ⓘ

Effective Term and Year ⓘ

Fall 2025

Proposal Details

Proposal Type ⓘ

Change

Academic Unit Approval

06/10/2025

Quality Assurance Designation ⓘ

Minor Modification

Is there an impact to existing students? ⓘ

Yes

Impact on Existing Students ⓘ

Existing students will be advised of the changes once approved.

Is the credential name changing?

No

Co-operative System of Study and Requirements ⓘ

No

Creating or Changing Invalid Combinations ⓘ

No

Change to Learning Outcomes

No

Rationale and Background for Change(s) ⓘ

Before Fall 2023, the 400-level science requirement for all Science and Business plans, except for the Biotechnology Specialization, was 0.5 unit, with 1.0 unit required for Biotechnology Specialization plans. An approved motion (September 2022 SUC) changed these minimum values and set them to 2.5 units for all Science and Business plans. This was undertaken to align the Science and Business plans with the requirements for Biology, Chemistry, Physics, and Earth majors.

In discussions with Associate Chair from Biology as well as program advisors, the students were struggling to find 400-level courses where they had the appropriate prerequisites, leading to instructors receiving many requests to override the prerequisites. Recent changes in retired or offered courses have reduced the number of choices of 400-level courses with few prerequisites. Having a significant number of students override prerequisites not only places the Science and Business students at a disadvantage, but in some cases impacts how the content is presented, discussed or assessed.

With the students following the Fall 2023 Calendar now preparing their choices for 400-level courses, these students are reaching out to advisors to find a sufficient number of 400-level courses for which they could meet prerequisites. For all departments, 2.5 units at the 400-level would require that the Science and Business students meticulously plan their courses from the 1A term, following the paths set for the Honours Biology, Chemistry, Physics or Earth students to be well prepared with the needed prerequisites.

The return to the Fall 2022 Calendar requirements, for the Fall 2023, 2024 and 2025 cohorts, without changing the total required Science units would provide students within all Science and Business plans greater flexibility. Students would still have the capacity and opportunity to take more than the minimum number of 400-level courses in any field. The proposed change will make the planning for science elective courses more manageable, allowing students to tailor their education to their interests and career goals.

Consultation with the Registrar's office regarding this retroactive motion for 2023 and 2024 Calendars, in addition to the motion for the current live 2025 Calendar, have been discussed. Only the 2025 Calendar will show amendments. A communication plan will be implemented for 2023, 2024, and incoming 2025 cohorts. the students in the 2023 and 2024 cohorts.

Consultations (Departmental) ⓘ**Supporting Documentation**

General Program/Plan Information

Faculty ⓘ

Faculty of Science

Academic Unit ⓘ

Dean of Science Office

Field of Study ⓘ

Science and Business

Faculty ⓘ

Faculty of Science

Undergraduate Credential Type ⓘ

Major

Program Type

Honours

Degree ⓘ

Bachelor of Science (Science)

Program/Plan Name ⓘ

Science and Business (Bachelor of Science - Honours)

Systems of Study

Co-operative
Regular

Online Degree/Diploma ⓘ

Admissions

Admissions Entry Point ⓘ

Direct Entry

Admission Requirements: Minimum Requirements ⓘ

Requirements Information

Invalid Combinations ⓘ

Yes

List of Invalid Combinations ⓘ

Management Studies Minor

Average Requirement ⓘ

Yes

Minimum Average(s) Required ⓘ

- A minimum cumulative overall average of 65.0%.
- A minimum cumulative Science average of 65.0%.

Proposed

Graduation Requirements ?

- See Bachelor of Science degree-level requirements.
- Complete a total of 21.0 units:
 - 11.0 units of required courses (see below).
 - 8.0 units of Science courses, from the following subject codes: BIOL, CHEM, EARTH, MNS, and PHYS, including:
 - 2.0 units of lecture and lab courses listed below.
 - 3.0 units at the 200-level or higher.
 - 2.5 units at the 300-level or higher.
 - 0.5 unit at the 400-level.
 - 0.5 unit of approved courses (see below).
 - 1.0 unit of additional Science or approved courses.
 - 0.5 unit of elective courses.
- A maximum of 2.0 failed units is permitted.

Existing

Graduation Requirements ?

- See Bachelor of Science degree-level requirements.
- Complete a total of 21.0 units:
 - 11.0 units of required courses (see below).
 - 8.0 units of Science courses, from the following subject codes: BIOL, CHEM, EARTH, MNS, and PHYS, including:
 - 2.0 units of lecture and lab courses listed below.
 - 1.5 units must be at the 200-level.
 - 2.0 units must be at the 300-level.
 - 2.5 units must be at the 400-level.
 - 0.5 unit of approved courses (see below).
 - 1.0 unit of additional Science or approved courses.
 - 0.5 unit of elective courses.
- A maximum of 2.0 failed units is permitted.

Co-operative Education Program Requirements ?

For students in the co-operative system of study, see Bachelor of Science co-operative education program requirements.

Course Requirements (units) ?

Required Courses

0

Units to Complete

No Rules

Course Requirements (no units) ?

Required Courses

- Complete all of the following
 - Complete all the following:
 - CHEM120 - General Chemistry 1 (0.50)
 - CHEM120L - General Chemistry Laboratory 1 (0.25)
 - CHEM123 - General Chemistry 2 (0.50)
 - CHEM123L - General Chemistry Laboratory 2 (0.25)
 - CS100 - Introduction to Computing Through Applications (0.50)

- ECON101 - Introduction to Microeconomics (0.50)
- ECON102 - Introduction to Macroeconomics (0.50)
- ECON201 - Microeconomic Theory for Business and Policy (0.50)
- ECON221 - Statistics for Economists (0.50)
- ECON371 - Business Finance 1 (0.50)
- MATH127 - Calculus 1 for the Sciences (0.50)
- MATH128 - Calculus 2 for the Sciences (0.50)
- MGMT220 - Entrepreneurship and the Creative Workplace (0.50)
- SCBUS122 - Management of Business Organizations (0.50)
- SCBUS123 - Workshop 1: Science and Business (0.50)
- SCBUS223 - Workshop 2: Strategies Behind Technological Innovation (0.50)
- SCBUS225 - Organizational Behaviour in Scientific and Technical Workplaces (0.50)
- SCBUS323 - Workshop 3: Technology Development (0.50)
- SCBUS423 - Workshop 4: Strategic Management of Science and Business (0.50)
- Complete 1 of the following:
 - AFM123 - Accounting Information for Managers (0.50)
 - ARBUS102 - Accounting Information for Managers (0.50)
- Complete 1 of the following:
 - AFM131 - Introduction to Business in North America (0.50)
 - ARBUS101 - Introduction to Business in North America (0.50)
- Complete 1 of the following:
 - AFM231 - Business Law (0.50)
 - LS283 - Business Law (0.50)
- Complete 1 of the following:
 - COMMST193 - Communication in the Sciences (0.50)
 - ENGL193 - Communication in the Sciences (0.50)

Science units

- Complete 1 of the following
 - Complete all of the following
 - Complete 2 of the following:
 - BIOL110 - Biodiversity, Biomes, and Evolution (0.50)
 - BIOL130 - Introductory Cell Biology (0.50)
 - BIOL150 - Organismal and Evolutionary Ecology (0.50)
 - BIOL165 - Diversity of Life (0.50)
 - BIOL201 - Human Anatomy (0.50)
 - BIOL211 - Introductory Vertebrate Zoology (0.50)
 - BIOL220 - Introduction to Plant Structure and Function (0.50)
 - BIOL239 - Genetics (0.50)
 - BIOL240 - Fundamentals of Microbiology (0.50)
 - BIOL241 - Introduction to Applied Microbiology (0.50)
 - BIOL251 - Fundamentals of Ecology (0.50)
 - BIOL266 - Introduction to Computational Biology (0.50)
 - BIOL273 - Principles of Human Physiology 1 (0.50)
 - Complete 1.0 unit of additional Science lecture or labs, any level
- Complete all of the following
 - Complete all the following:
 - EARTH121 - Introductory Earth Sciences (0.50)

- EARTH121L - Introductory Earth Sciences Laboratory (0.25)
 - EARTH122 - Introductory Environmental Sciences (0.50)
 - EARTH122L - Introductory Environmental Sciences Laboratory (0.25)
- Complete 0.5 unit of additional Science lecture or labs, any level
- Complete all of the following
 - Complete all the following:
 - PHYS111 - Physics 1 (0.50)
 - PHYS111L - Physics 1 Laboratory (0.25)
 - PHYS112 - Physics 2 (0.50)
 - PHYS112L - Physics 2 Laboratory (0.25)
 - Complete 0.5 unit of additional Science lecture or labs, any level
- Complete all of the following
 - Complete all the following:
 - PHYS121 - Mechanics (0.50)
 - PHYS121L - Mechanics Laboratory (0.25)
 - PHYS122 - Waves, Electricity and Magnetism (0.50)
 - PHYS122L - Waves, Electricity and Magnetism Laboratory (0.25)
 - Complete 0.5 unit of additional Science lecture or labs, any level

Approved Courses List

- Complete 1 of the following:
 - ACTSC231 - Introductory Financial Mathematics (0.50)
 - AFM333 - International Business (0.50)
 - ARBUS301 - International Business (0.50)
 - BET300 - Foundations of Venture Creation (0.50)
 - ECON211 - Introduction to Mathematical Economics (0.50)
 - ECON311 - Mathematical Economics (0.50)
 - ECON361 - Cost-Benefit Analysis and Project Evaluation (0.50)
 - ECON372 - Business Finance 2 (0.50)
 - HRM200 - Basic Human Resources Management (0.50)
 - HRM301 - Strategic Human Resources Management (0.50)
 - INDEV100 - Introduction to International Development (0.50)
 - MSE311 - Organizational Design and Technology (0.50)
 - MSE432 - Production and Service Operations Management (0.50)
 - STAT231 - Statistics (0.50)
 - STAT333 - Stochastic Processes 1 (0.50)

Course Lists ⓘ

Required Courses

No Rules

Are there cross-listed courses listed in requirements?

Yes

Cross-Listings Options ⓘ

All cross-listings to be displayed

Additional Constraints ⓘ

- 1. A maximum of 1.0 Science lab unit, exclusive of CHEM120L and CHEM123L, is permitted.
- 2. Alternative approved courses may be substituted with permission from the academic advisor.
- 3. SCBUS-labelled courses do not count as Science units and are not included in any Science average calculations.

Notes ⓘ

- See list of academic advisors.
- Students can choose to emphasize international business with AFM333/ARBUS301 and INDEV100, entrepreneurship with BET300 and MSE311, technical development with MSE311, or strategic operations with ECON311 and MSE311.
- See Faculty of Science recommended course sequences.

Specializations

Specializations for this Major ⓘ

No

Workflow Information

Change to Undergraduate Communication Requirement

No

Workflow Path ⓘ

Committee approvals

Faculty/AFIW Path(s) for Workflow ⓘ

Faculty of Science

Senate Workflow

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Dependencies

Dependent Courses and Programs/Plans

ANTIREQUISITES

✓ AFM 101 - Introduction to Financial Accounting [View Courses >](#)

COREQUISITES

✓ ECON 221 - Statistics for Economists [View Courses >](#)

PREREQUISITES

✓ SCBUS 122 - Management of Business Organizations [View Courses >](#)

✓ SCBUS 225 - Organizational Behaviour in Scientific and Technical Workplaces [View Courses >](#)

✓ SCBUS 123 - Workshop 1: Science and Business [View Courses >](#)

✓ SCBUS 223 - Workshop 2: Strategies Behind Technological Innovation [View Courses >](#)

✓ SCBUS 425 - Workshop 6: Challenges in Globalizing Science and Technology [View Courses >](#)

✓ AFM 123 - Accounting Information for Managers [View Courses >](#)

✓ SCBUS 323 - Workshop 3: Technology Development [View Courses >](#)

✓ SCBUS 423 - Workshop 4: Strategic Management of Science and Business [View Courses >](#)

H-Science & Business - Biology Specialization

Science and Business - Biology Specialization (Bachelor of Science - Honours)

Revision

|

Under Review

|

Fall 2025

Proposal Information

Workflow Status

In Progress

SUC Subcommittee, SUC Curricular Subcommittee

expand ▲

Waiting for Approval | Approval Delegate(s)

- Tim Weber-Kraljevski
- Diana Goncalves
- Kuali - Arts
- Kuali - Env
- Melanie Figueiredo
- Kuali - Math
- Kuali - Eng
- Kuali - Hlth
- Ashley Day
- Kuali - Science

Changes

- Graduation Requirements

Effective Date and Career

Career

Undergraduate

Important! ⓘ

Effective Term and Year ⓘ

Fall 2025

Proposal Details

Proposal Type ⓘ

Change

Academic Unit Approval

06/10/2025

Quality Assurance Designation ⓘ

Minor Modification

Is there an impact to existing students? ⓘ

Yes

Impact on Existing Students ⓘ

Existing students will be advised of the changes once approved.

Is the credential name changing?

No

Co-operative System of Study and Requirements ?

No

Creating or Changing Invalid Combinations ?

No

Change to Learning Outcomes

No

Rationale and Background for Change(s) ?

Before Fall 2023, the 400-level science requirement for all Science and Business plans, except for the Biotechnology Specialization, was 0.5 unit, with 1.0 unit required for Biotechnology Specialization plans. An approved motion (September 2022 SUC) changed these minimum values and set them to 2.5 units for all Science and Business plans. This was undertaken to align the Science and Business plans with the requirements for Biology, Chemistry, Physics, and Earth majors.

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Consultation with the Registrar's office regarding this retroactive motion for 2023 and 2024 Calendars, in addition to the motion for the current live 2025 Calendar, have been discussed. Only the 2025 Calendar will show amendments. A communication plan will be implemented for 2023, 2024, and incoming 2025 cohorts. the students in the 2023 and 2024 cohorts.

Consultations (Departmental) ?**Supporting Documentation**

General Program/Plan Information

Faculty ? Faculty of Science		Academic Unit ? Dean of Science Office	
Field of Study ? Science and Business		Faculty ? Faculty of Science	
Undergraduate Credential Type ? Major	Program Type Honours	Degree ? Bachelor of Science (Science)	
Program/Plan Name ? Science and Business - Biology Specialization (Bachelor of Science - Honours)			
Systems of Study Co-operative Regular		Online Degree/Diploma ?	

Admissions

Admissions Entry Point ⓘ Direct Entry
Admission Requirements: Minimum Requirements ⓘ

Requirements Information

Invalid Combinations ⓘ Yes	List of Invalid Combinations ⓘ CS-Bioinformatics SpecializationBiology Minor Biology SpecializationManagement Studies Minor
Average Requirement ⓘ Yes	Minimum Average(s) Required ⓘ <ul style="list-style-type: none">A minimum cumulative overall average of 65.0%.A minimum cumulative Science average of 65.0%.

Proposed

Graduation Requirements ?

- See Bachelor of Science degree-level requirements.
- Complete a total of 21.0 units:
 - 11.5 units of required courses (see below).
 - 1.0 unit of approved courses (see below).
 - 7.0 units of BIOL courses, with the following constraints:
 - 3.0 units at the 100- or 200-level.
 - 3.5 units at the 300- or 400-level.
 - 0.5 unit at the 400-level.
 - 1.0 unit from additional BIOL courses at the 300-level or additional approved courses.
 - 0.5 unit of elective courses.
- A maximum of 2.0 failed units is permitted.

Existing

Graduation Requirements ?

- See Bachelor of Science degree-level requirements.
- Complete a total of 21.0 units:
 - 11.5 units of required courses (see below).
 - 1.0 unit of approved courses (see below).
 - 7.0 units of BIOL courses, with the following constraints:
 - 2.5 units must be at the 100- or 200-level.
 - 2.0 units must be at the 300- or 400-level.
 - 2.5 units must be at the 400-level.
 - 1.0 unit from additional BIOL courses at the 300-level or additional approved courses.
 - 0.5 unit of elective courses.
- A maximum of 2.0 failed units is permitted.

Co-operative Education Program Requirements ?

For students in the co-operative system of study, see Bachelor of Science co-operative education program requirements.

Course Requirements (units) ?**Required Courses****11.5**

Units to Complete

- Complete all of the following
 - Complete all the following:
 - CHEM120 - General Chemistry 1 (0.50)
 - CHEM120L - General Chemistry Laboratory 1 (0.25)
 - CHEM123 - General Chemistry 2 (0.50)
 - CHEM123L - General Chemistry Laboratory 2 (0.25)
 - CHEM237 - Introductory Biochemistry (0.50)
 - CHEM237L - Introductory Biochemistry Laboratory (0.25)
 - CHEM266 - Basic Organic Chemistry 1 (0.50)
 - CHEM266L - Organic Chemistry Laboratory (0.25)
 - CS100 - Introduction to Computing Through Applications (0.50)
 - ECON101 - Introduction to Microeconomics (0.50)
 - ECON102 - Introduction to Macroeconomics (0.50)
 - ECON221 - Statistics for Economists (0.50)
 - ECON371 - Business Finance 1 (0.50)
 - MATH127 - Calculus 1 for the Sciences (0.50)

- MGMT220 - Entrepreneurship and the Creative Workplace (0.50)
- SCBUS122 - Management of Business Organizations (0.50)
- SCBUS123 - Workshop 1: Science and Business (0.50)
- SCBUS223 - Workshop 2: Strategies Behind Technological Innovation (0.50)
- SCBUS225 - Organizational Behaviour in Scientific and Technical Workplaces (0.50)
- SCBUS323 - Workshop 3: Technology Development (0.50)
- SCBUS423 - Workshop 4: Strategic Management of Science and Business (0.50)
- Complete 1 of the following:
 - AFM123 - Accounting Information for Managers (0.50)
 - ARBUS102 - Accounting Information for Managers (0.50)
- Complete 1 of the following:
 - AFM131 - Introduction to Business in North America (0.50)
 - ARBUS101 - Introduction to Business in North America (0.50)
- Complete 1 of the following:
 - AFM231 - Business Law (0.50)
 - LS283 - Business Law (0.50)
- Complete 1 of the following:
 - COMMST193 - Communication in the Sciences (0.50)
 - ENGL193 - Communication in the Sciences (0.50)

Approved Courses List

1

Units to Complete

- Complete 2 of the following:
 - ACTSC231 - Introductory Financial Mathematics (0.50)
 - AFM333 - International Business (0.50)
 - ARBUS301 - International Business (0.50)
 - BET300 - Foundations of Venture Creation (0.50)
 - ECON211 - Introduction to Mathematical Economics (0.50)
 - ECON311 - Mathematical Economics (0.50)
 - ECON361 - Cost-Benefit Analysis and Project Evaluation (0.50)
 - ECON372 - Business Finance 2 (0.50)
 - HRM200 - Basic Human Resources Management (0.50)
 - HRM301 - Strategic Human Resources Management (0.50)
 - INDEV100 - Introduction to International Development (0.50)
 - MSE311 - Organizational Design and Technology (0.50)
 - MSE432 - Production and Service Operations Management (0.50)
 - STAT231 - Statistics (0.50)
 - STAT333 - Stochastic Processes 1 (0.50)

Grand Total Units: 12.5

Course Requirements (no units) ⓘ

Required Courses

No Rules

Course Lists ⓘ

Required Courses

No Rules

Are there cross-listed courses listed in requirements? **Cross-Listings Options** ⓘ

Yes

All cross-listings to be displayed

Additional Constraints ⓘ

1. Alternative approved courses may be substituted with permission from the academic advisor.
2. SCBUS-labelled courses do not count as Science units and are not included in any Science average calculations.

Notes ⓘ

- See list of academic advisors.
- Students can choose to emphasize international business with AFM333/ARBUS301 and INDEV100, entrepreneurship with BET300 and MSE311, technical development with MSE311, or strategic operations with ECON311 and MSE311.
- See Faculty of Science recommended course sequences.

Specializations

Specializations for this Major ⓘ

No

Workflow Information

Change to Undergraduate Communication Requirement

No

Workflow Path ⓘ	Faculty/AFIW Path(s) for Workflow ⓘ	Senate Workflow
Committee approvals	Faculty of Science	--

Dependencies

Dependent Courses and Programs/Plans

ANTIREQUISITES	
✓ AFM 101 - Introduction to Financial Accounting	View Courses >
COREQUISITES	
✓ ECON 221 - Statistics for Economists	View Courses >
PREREQUISITES	
✓ SCBUS 122 - Management of Business Organizations	View Courses >
✓ SCBUS 225 - Organizational Behaviour in Scientific and Technical Workplaces	View Courses >
✓ SCBUS 123 - Workshop 1: Science and Business	View Courses >
✓ SCBUS 223 - Workshop 2: Strategies Behind Technological Innovation	View Courses >
✓ SCBUS 425 - Workshop 6: Challenges in Globalizing Science and Technology	View Courses >
✓ AFM 123 - Accounting Information for Managers	View Courses >
✓ SCBUS 323 - Workshop 3: Technology Development	View Courses >
✓ SCBUS 423 - Workshop 4: Strategic Management of Science and Business	View Courses >

H-Science & Business - Biochemistry Specialization

Science and Business - Biochemistry Specialization

(Bachelor of Science - Honours)

Revision

|

Under Review

|

Fall 2025

Proposal Information

Workflow Status

In Progress

SUC Subcommittee, SUC Curricular Subcommittee

expand ▲

Waiting for Approval | Approval Delegate(s)

- Tim Weber-Kraljevski
- Diana Goncalves
- Kuali - Arts
- Kuali - Env
- Melanie Figueiredo
- Kuali - Math
- Kuali - Eng
- Kuali - Hlth
- Ashley Day
- Kuali - Science

Changes

- Additional Constraints
- Graduation Requirements
- Course Requirements (units)

Effective Date and Career

Career

Undergraduate

Important! ⓘ

Effective Term and Year ⓘ

Fall 2025

Proposal Details

Proposal Type ⓘ

Change

Academic Unit Approval

06/10/2025

Quality Assurance Designation ⓘ

Minor Modification

Is there an impact to existing students? ⓘ

Yes

Impact on Existing Students ⓘ

Existing students will be advised of the changes once approved.

Is the credential name changing?

No

Co-operative System of Study and Requirements ⓘ

No

Creating or Changing Invalid Combinations ⓘ

No

Change to Learning Outcomes

No

Rationale and Background for Change(s) ⓘ

Before Fall 2023, the 400-level science requirement for all Science and Business plans, except for the Biotechnology Specialization, was 0.5 unit, with 1.0 unit required for Biotechnology Specialization plans. An approved motion (September 2022 SUC) changed these minimum values and set them to 2.5 units for all Science and Business plans. This was undertaken to align the Science and Business plans with the requirements for Biology, Chemistry, Physics, and Earth majors.

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Consultations (Departmental) ⓘ**Supporting Documentation**

General Program/Plan Information

Faculty ? Faculty of Science		Academic Unit ? Dean of Science Office	
Field of Study ? Science and Business		Faculty ? Faculty of Science	
Undergraduate Credential Type ? Major	Program Type Honours	Degree ? Bachelor of Science (Science)	
Program/Plan Name ? Science and Business - Biochemistry Specialization (Bachelor of Science - Honours)			
Systems of Study Co-operative Regular		Online Degree/Diploma ?	

Admissions

Admissions Entry Point ⓘ Direct Entry
Admission Requirements: Minimum Requirements ⓘ

Requirements Information

Invalid Combinations ⓘ Yes	List of Invalid Combinations ⓘ CS-Bioinformatics SpecializationBiology Minor Biology SpecializationManagement Studies Minor
Average Requirement ⓘ Yes	Minimum Average(s) Required ⓘ <ul style="list-style-type: none">A minimum cumulative overall average of 65.0%.A minimum cumulative Science average of 65.0%.

Proposed

Graduation Requirements ⓘ

- See Bachelor of Science degree-level requirements.
- Complete a total of 21.0 units:
 - 17.0 units of required courses (see below).
 - 1.0 unit of approved courses (see below).
 - 1.0 unit of additional BIOL or CHEM or approved courses (see below).
 - 1.0 unit of additional BIOL courses, at the 100- or 200-level.
 - 0.5 unit of additional CHEM courses, at the 200-level.
 - 0.5 unit of elective courses.
- A maximum of 2.0 failed units is permitted.

Existing

Graduation Requirements ⓘ

- See Bachelor of Science degree-level requirements.
- Complete a total of 21.0 units:
 - 18.0 units of required courses (see below).
 - 1.0 unit of approved courses (see below).
 - 1.0 unit of additional BIOL courses, at the 100- or 200-level.
 - 0.5 unit of additional BIOL or CHEM courses, at the 200-level.
 - 0.5 unit of elective courses.
- A maximum of 2.0 failed units is permitted.

Co-operative Education Program Requirements ⓘ

For students in the co-operative system of study, see Bachelor of Science co-operative education program requirements.

Course Requirements (units) ⓘ

Required Courses

~~18~~

17

Units to Complete

- Complete all of the following
 - Complete all the following:
 - BIOL130 - Introductory Cell Biology (0.50)
 - BIOL235 - Foundations of Molecular Biology (0.50)
 - BIOL239 - Genetics (0.50)
 - BIOL331 - Advanced Cell Biology (0.50)
 - CHEM120 - General Chemistry 1 (0.50)
 - CHEM120L - General Chemistry Laboratory 1 (0.25)
 - CHEM123 - General Chemistry 2 (0.50)
 - CHEM123L - General Chemistry Laboratory 2 (0.25)
 - CHEM237 - Introductory Biochemistry (0.50)
 - CHEM237L - Introductory Biochemistry Laboratory (0.25)
 - CHEM333 - Metabolism 1 (0.50)
 - CS100 - Introduction to Computing Through Applications (0.50)
 - ECON101 - Introduction to Microeconomics (0.50)
 - ECON102 - Introduction to Macroeconomics (0.50)
 - ECON221 - Statistics for Economists (0.50)
 - ECON371 - Business Finance 1 (0.50)
 - MATH127 - Calculus 1 for the Sciences (0.50)
 - MGMT220 - Entrepreneurship and the Creative Workplace (0.50)

- SCBUS122 - Management of Business Organizations (0.50)
- SCBUS123 - Workshop 1: Science and Business (0.50)
- SCBUS223 - Workshop 2: Strategies Behind Technological Innovation (0.50)
- SCBUS225 - Organizational Behaviour in Scientific and Technical Workplaces (0.50)
- SCBUS323 - Workshop 3: Technology Development (0.50)
- SCBUS423 - Workshop 4: Strategic Management of Science and Business (0.50)
- Complete 1 of the following:
 - AFM123 - Accounting Information for Managers (0.50)
 - ARBUS102 - Accounting Information for Managers (0.50)
- Complete 1 of the following:
 - AFM131 - Introduction to Business in North America (0.50)
 - ARBUS101 - Introduction to Business in North America (0.50)
- Complete 1 of the following:
 - AFM231 - Business Law (0.50)
 - LS283 - Business Law (0.50)
- Complete 2 5 of the following:
 - BIOL308 - Principles of Molecular Biology (0.50)
 - BIOL341 - Fundamentals of Immunology (0.50)
 - BIOL342 - Molecular Biotechnology 1 (0.50)
 - BIOL345 - Microorganisms in Foods (0.50)
 - BIOL365 - Methods in Bioinformatics (0.50)
 - BIOL370 - Comparative Animal Physiology: Environmental Aspects (0.50)
 - BIOL371 - Comparative Animal Physiology: Evolutionary Themes (0.50)
 - **BIOL403 - Developmental Biology and Embryology (0.50)**
 - **BIOL431 - Bacterial Molecular Genetics (0.50)**
 - **BIOL432 - Molecular Biotechnology 2 (0.50)**
 - **BIOL434 - Human Molecular Genetics (0.50)**
 - **BIOL439 - Environmental and Natural Products Biochemistry (0.50)**
 - **BIOL441 - Advances in Immunology (0.50)**
 - **BIOL442 - Virology (0.50)**
 - **BIOL447 - Environmental Microbiology (0.50)**
 - **CHEM430 - Special Topics in Biochemistry (0.50)**
 - **CHEM432 - Metabolism 2 (0.50)**
 - **CHEM433 - Advanced Biochemistry (0.50)**
 - **CHEM464 - Spectroscopy in Organic Chemistry (0.50)**
- Complete 5 of the following:
 - ~~BIOL403 - Developmental Biology and Embryology (0.50)~~
 - ~~BIOL431 - Bacterial Molecular Genetics (0.50)~~
 - ~~BIOL432 - Molecular Biotechnology 2 (0.50)~~
 - ~~BIOL433 - Plant Biotechnology (0.50)~~
 - ~~BIOL434 - Human Molecular Genetics (0.50)~~
 - ~~BIOL439 - Environmental and Natural Products Biochemistry (0.50)~~
 - ~~BIOL441 - Advances in Immunology (0.50)~~
 - ~~BIOL442 - Virology (0.50)~~
 - ~~BIOL447 - Environmental Microbiology (0.50)~~
 - ~~CHEM430 - Special Topics in Biochemistry (0.50)~~
 - ~~CHEM432 - Metabolism 2 (0.50)~~
 - ~~CHEM433 - Advanced Biochemistry (0.50)~~
 - ~~CHEM464 - Spectroscopy in Organic Chemistry (0.50)~~

- Complete 1 of the following
 - Complete all the following:
 - CHEM264 - Organic Chemistry 1 (0.50)
 - CHEM265 - Organic Chemistry 2 (0.50)
 - CHEM265L - Organic Chemistry Laboratory 1 (0.25)
 - Complete all the following:
 - CHEM266 - Basic Organic Chemistry 1 (0.50)
 - CHEM266L - Organic Chemistry Laboratory (0.25)
 - CHEM267 - Basic Organic Chemistry 2 (0.50)
- Complete 1 of the following:
 - COMMST193 - Communication in the Sciences (0.50)
 - ENGL193 - Communication in the Sciences (0.50)

Approved Courses List

1

Units to Complete

- Complete 2 of the following:
 - ACTSC231 - Introductory Financial Mathematics (0.50)
 - AFM333 - International Business (0.50)
 - ARBUS301 - International Business (0.50)
 - BET300 - Foundations of Venture Creation (0.50)
 - ECON211 - Introduction to Mathematical Economics (0.50)
 - ECON311 - Mathematical Economics (0.50)
 - ECON361 - Cost-Benefit Analysis and Project Evaluation (0.50)
 - ECON372 - Business Finance 2 (0.50)
 - HRM200 - Basic Human Resources Management (0.50)
 - HRM301 - Strategic Human Resources Management (0.50)
 - INDEV100 - Introduction to International Development (0.50)
 - MSE311 - Organizational Design and Technology (0.50)
 - MSE432 - Production and Service Operations Management (0.50)
 - STAT231 - Statistics (0.50)
 - STAT333 - Stochastic Processes 1 (0.50)

Grand Total Units: 19 18

Course Requirements (no units) ⓘ

Required Courses

No Rules

Course Lists ⓘ

Required Courses

No Rules

Are there cross-listed courses listed in requirements?

Yes

Cross-Listings Options ⓘ

All cross-listings to be displayed

Proposed

Additional Constraints ⓘ

1. Alternative approved courses may be substituted with permission from the academic advisor.
2. SCBUS-labelled courses do not count as Science units and are not included in any Science average calculations.
3. A minimum of 0.5 unit BIOL or CHEM elective must be at 400-level

Existing

Additional Constraints ⓘ

1. Alternative approved courses may be substituted with permission from the academic advisor.
2. SCBUS-labelled courses do not count as Science units and are not included in any Science average calculations.

Notes ⓘ

- See list of academic advisors.
- Students can choose to emphasize international business with AFM333/ARBUS301 and INDEV100, entrepreneurship with BET300 and MSE311, technical development with MSE311, or strategic operations with ECON311 and MSE311.
- See Faculty of Science for recommended course sequence.

Specializations

Specializations for this Major ⓘ

No

Workflow Information

Change to Undergraduate Communication Requirement

No

Workflow Path ⓘ	Faculty/AFIW Path(s) for Workflow ⓘ	Senate Workflow
Committee approvals	Faculty of Science	--

Dependencies

Dependent Courses and Programs/Plans

ANTIREQUISITES	
✓ AFM 101 - Introduction to Financial Accounting	View Courses >
COREQUISITES	
✓ ECON 221 - Statistics for Economists	View Courses >
PREREQUISITES	
✓ SCBUS 122 - Management of Business Organizations	View Courses >
✓ SCBUS 225 - Organizational Behaviour in Scientific and Technical Workplaces	View Courses >
✓ SCBUS 123 - Workshop 1: Science and Business	View Courses >
✓ SCBUS 223 - Workshop 2: Strategies Behind Technological Innovation	View Courses >
✓ SCBUS 425 - Workshop 6: Challenges in Globalizing Science and Technology	View Courses >
✓ CHEM 220L - Quantitative Chemical Analysis Laboratory	View Courses >
✓ CHEM 265L - Organic Chemistry Laboratory 1	View Courses >
✓ AFM 123 - Accounting Information for Managers	View Courses >
✓ SCBUS 323 - Workshop 3: Technology Development	View Courses >
✓ SCBUS 423 - Workshop 4: Strategic Management of Science and Business	View Courses >

H-Science & Business - Biotechnology Specialization

Science and Business - Biotechnology Specialization

(Bachelor of Science - Honours)

Revision

|

Under Review

|

Fall 2025

Proposal Information

Workflow Status

In Progress

SUC Subcommittee, SUC Curricular Subcommittee

Waiting for Approval | Approval Delegate(s)

expand ▲

Tim Weber-Kraljevski

Diana Goncalves

Kuali - Arts

Kuali - Env

Melanie Figueiredo

Kuali - Math

Kuali - Eng

Kuali - Hlth

Ashley Day

Kuali - Science

- Changes
- Additional Constraints

Effective Date and Career

Career	Important! ⓘ
Undergraduate	
	Effective Term and Year ⓘ
	Fall 2025

Proposal Details

Proposal Type ⓘ	Academic Unit Approval
Change	
Quality Assurance Designation ⓘ	
Minor Modification	