Carleton University

Office of the Vice-Provost
(Academic and Global Learning)

memorandum

DATE: March 18, 2026

TO: Senate

FROM: Dr. David J. Hornsby, Vice-Provost (Academic and Global Learning), and Chair, Senate Quality Assurance and Planning Committee

RE: Calendar Curriculum Proposals
Major Modifications

Background

Following Faculty Board approval, as part of academic quality assurance, major curriculum modifications are considered by the Senate Quality Assurance and Planning Committee (SQAPC) before being recommended to Senate. Major curriculum modifications are also considered by the Senate Committee on Curriculum, Admissions and Studies Policy (SCCASP).

Library Reports (as required)

In electronic communication members of the Library staff, upon review of the proposals, confirmed no additional resources were required for the major modifications included below.

Documentation

Recommended calendar language, along with supplemental documentation as appropriate, are provided for consideration and approval.

Omnibus Motion

In order to expedite business with the multiple changes that are subject to Senate approval at this meeting, an omnibus motion will be moved and include all items below. Senators may wish to identify any of the major modifications that they feel warrant individual discussion that will then not be covered by the omnibus motion. Independent motions as set out below will nonetheless be written into the Senate minutes for those major modifications that Senators agree can be covered by the omnibus motion.

THAT Senate approve the major modifications as presented below.

Major Modifications

1. **Infrastructure Protection and International Security**
   SCCASP approval: February 3, 2026
   SQAPC approval: February 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the closure of MENG programs, the associated modifications and the change in governance of the graduate program in Infrastructure Protection and International Security as presented with effect from Fall 2026.

2. **IRM 3007 & 3009**
   SCCASP approval: March 3, 2026
   SQAPC approval: February 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the introduction of IRM 3009 & deletion of IRM 3007 as presented with effect from Fall 2026.

3. **M.Sc. Physics**
   SCCASP approval: February 3, 2026
   SQAPC approval: February 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the major modification to the MSc program in Physics and the introduction of PHYS 5910 & 5911 as presented with effect from Fall 2026.

4. **Technology Innovation Management**
   SCCASP approval: February 3, 2026
   SQAPC approval: February 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the major modification to the Technology Innovation Management programs as presented with effect from Fall 2026.

5. **WGST 3999**
   SCCASP approval: February 3, 2026
   SQAPC approval: February 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the introduction of WGST 3999 as presented with effect from Fall 2026.

6. **PSYC 5904**
   SCCASP approval: February 3, 2026
   SQAPC approval: January 22, 2026

Senate Motion March 27, 2026

THAT Senate approve the major modification to PSYC 5904 as presented with effect from Fall 2026.

7. **Minor in Integrated Science**
   SCCASP approval: March 3, 2026
   SQAPC approval: March 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the name change of the minor in Integrated Science to Interdisciplinary Science Application as presented with effect from Fall 2026.

8. **PhD Information Technology**
   SCCASP approval: March 17, 2026
   SQAPC approval: March 12, 2026

Senate Motion March 27, 2026

THAT Senate approve the major modification to the PhD in Information Technology program as presented with effect from Fall 2026.

Change in Governance

MEMORANDUM

To: Vice-President's Academic and Research Committee (VPARC)

From: Teddy Samy, Alex Wilner, and Valerie Percival and Norman Paterson School of International Affairs; Yasser Hassan, Department of Civil and Environmental Engineering

CC: Brenda O'Neill, Dean, Faculty of Public and Global Affairs; Ronald Miller, Dean, Faculty of Engineering and Design

Date: 14 November 2025

Subject: Changes to the Infrastructure Protection and International Security Program

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Description of the modification

The Infrastructure Protection and International Security (IPIS) is presently a stand-alone program with shared governance and responsibility shared between the Norman Paterson School of International Affairs (NPSIA) and applied sciences through the Department of Civil and Environmental Engineering (CEE). The program administration has reporting responsibilities to both the Faculty of Public and Global Affairs (FPGA) and the Faculty of Engineering and Design (FED).

The program offers two different degree pathways: Master of Infrastructure Protection and International Security (MIPIS), and Master of Engineering Infrastructure Protection and International Security (MEng-IPIS). Due to low enrolments in the MEng-IPIS, FED has decided to close the MEng-IPIS program, including the MEng-IPIS with Collaborative Specialization in Security by 2026-27 and halt admissions as of Fall 2026.

As a consequence of this decision, we propose that the administration of MIPIS be transferred to NPSIA and the program managed exclusively by NPSIA. This has the support of both the Dean of FPGA and of FED.

This modification will effectively change IPIS from a stand-alone program managed by two different faculties into a program housed entirely within FPGA. CEE will no longer have any role in managing the program, and the oversight and reporting will be handled entirely by FPGA. Going forward, all IPIS students will be administered by NPSIA, and the students will receive the Master of Infrastructure Protection and International Security (MIPIS) degree.

Principal rationale

As originally conceived, the Infrastructure Protection and International Security (IPIS) program at Carleton was designed to bring students in the social sciences together with engineering students in a unique academic setting that would help address gaps in protecting Canada's critical

infrastructure from human and natural threats. Students with a liberal arts background would learn basic physics and engineering principles, and students with an applied sciences background would learn about international security and the institutions responsible for responding to them.

The expectation of the program designers was that the social sciences component of the program would be housed at NPSIA and the applied sciences at CEE. Whereas NPSIA would recruit and vet social science students, CEE would do the same for engineering students. Ideally, it was hoped that program enrolment would be evenly split between the two cohorts.

In assessing developments in the almost 15 years since IPIS began, we have observed the following:

Program Composition: Since the founding of IPIS in 2010, enrolment has been dominated by social science students. To recruit more applied science students, an MSc in Engineering option was introduced in 2015. Unfortunately, the number of applied science students applying to the program remains low, and the majority of these have been international students. Over the last 10 years, the number of M.Eng students in the program has varied, with the highest in Fall 2017, with 13 registered M.Eng students in both years, representing 36% of the cohort. However, in the last three years, only 4-6 M.Eng students have enrolled (representing 19-25% of the cohort). When divided across the two years of the program, this means the M.Eng is only attracting 2-3 students per year.

Program Modernization: We believe that the IPIS program needs to evolve with the times. The program as presently constructed reflects a post-9/11 environment, where the primary threats to critical infrastructure were deemed to be from international violent extremist movements (such as Al Qaida).

The proposed governance change will enable us to realign the MIPIS program to the evolving nature of what is considered 'critical infrastructure,' and the changing nature of threats to that infrastructure including climate change, humanitarian emergencies, digital infrastructure, and the information environment. Moreover, moving the IPIS program fully into NPSIA will create a more coherent, modern, and efficient structure, eliminating administrative complexity and increasing efficiencies in decision-making. In the future, the proposed single governance framework will make it easier to refresh course offerings, integrate interdisciplinary perspectives, and ensure the program remains relevant to today's policy and security challenges.

In addition to academic modernization, the governance shift enhances institutional efficiency. With all administrative, faculty, and student services housed in one place, duplication of roles and processes between faculties will be eliminated. This includes reduced administrative reporting, more efficient recruitment coordination, and better use of teaching and staff resources. Students will also benefit from a stronger sense of belonging within NPSIA, gaining access to its faculty expertise, resource centre, and established academic supports. In essence, consolidating governance within NPSIA provides both a structural and intellectual renewal of the program—ensuring that IPIS remains academically strong, administratively streamlined, and aligned with Carleton's broader goals for innovation and efficiency in graduate education.

Efficiencies: Integrating the IPIS program into NPSIA at Carleton University will provide significant academic and administrative benefits, particularly for students. IPIS students will gain access to NPSIA's established resources, including its resource centre and full-time faculty, giving them a

stronger academic "home" and clearer administrative support. This consolidation will also reduce confusion by placing all students under one faculty and allow broader course access between the programs.

From a resource perspective, the proposed changes streamline operations and reduce redundancy. The elimination of the IPIS Director role and certain teaching assistant and contract instructor positions will lead to faculty efficiencies, while merging administrative and recruitment functions will save staff time. Relocating IPIS activities to NPSIA's space in Richcraft Hall will centralize student support and remove the need for separate facilities. Governance structures will also become more coherent, with IPIS awards administered through NPSIA and program oversight fully under the Faculty of Public and Global Affairs. Overall, the shift strengthens academic cohesion, simplifies student services, and promotes more effective use of institutional resources.

Description of changes to program structure

M.Eng programs will be eliminated. These include:

- M.Eng. Infrastructure Protection and International Security
- M.Eng. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity

The structure of the MIPIS program remains largely unchanged, limited to the deletion of some courses offered by Civil Engineering, including IPIS 5003 (Mathematics and Engineering Primer for non-Engineers), IPIS 5103 (Infrastructure Engineering Principles), IPIS 5520 (Selected Topics in Engineering of Critical Infrastructure), IPIS 5907 (Research Project). In addition, IPIS 5908 (Research Paper) will also be deactivated in line with making the program more professionally orientated.

Description of graduation requirements (required for stand-alone credentials)

There is no change for students in the MIPIS programs.

Impact on Other Programs

- Civil Engineering Department: The M.Eng will be eliminated. Some courses in the civil engineering department may have fewer students, but the numbers involved are quite small.
- Collaborative Specialization in Climate Change: This specialization will lose 0.25 administrative support if the IPIS administrative position is eliminated.
- NPSIA: Depending on uptake and recruitment, administrators and faculty may be dealing with 9-15 more students per year. The current NPSIA PhD administrator will take on management of the M.IPIS program.
- Cybersecurity Collaborative Specialization: There should be no effect on this program, as both IPIS and NPSIA are separately part of the collaborative specialization, and these will be retained.

Impact on Learning Outcomes and Curriculum Map

Under our current proposal, the learning objectives of the MIPIS program stay the same. The main change is that students will no longer be taking 1.5 credits in Engineering or Engineering adjacent courses and instead will be more policy focused rather than engineering principles focused. However, students in the Cybersecurity Collaborative Specialization will continue to take some technical computer science courses.

Societal Need

Critical infrastructure will always play a central role in the economy and ensuring the wellbeing of Canadians. It is likely to play a central role in policy conversations over the next several years given the trajectory of the government's plans, producing students who understand what infrastructure is, the challenges in maintaining and protecting it, the importance of societal resilience as well as issues around equity and inclusion to infrastructure will be of great benefit to Canadian society. As such, we believe the program should continue.

Students

Sense of departmental "home": At present there are no full-time IPIS faculty. Bringing the IPIS program into NPSIA will give IPIS students a better sense of a "home" department and access to full-time faculty. It will also eliminate bureaucratic confusion and fully house students in one faculty, providing them greater certainty. Finally, it will enable us to open IPIS courses to more students in the NPSIA program.

Access to NPSIA benefits and resources: IPIS students will have access to certain NPSIA benefits that they do not currently possess, such as NPSIA's resource centre.

More efficient, targeted recruitment: By bringing the program into NPSIA, recruitment efforts can be merged and streamlined. We believe that this will save both staff and administrative time through efficiencies in terms of recruitment materials and registration processes.

Improved access to courses: Placing the program in NPSIA will create the opportunity for more students to take IPIS courses they have not previously had access to. For example, NPSIA students may be able to take IPIS 5101 (Critical Infrastructure Protection: Issues and Strategies), IPIS 5105 (Critical Infrastructure Risk Assessment) and IPIS 5106 (Management of Critical Infrastructure). We also believe this will help achieve the faculty's goal of making more efficient use of teaching resources.

Resources

Contract Instructors: The changes will result in the reduction of at least one [0.5] CI hire with the elimination of IPIS 5103 [0.5]. Traditionally there have been an additional two-three IPIS-specific engineering courses taught by CIs to provide the required engineering options accessible to social science students. We would expect that only one of these would need to be retained.

Administrative support: As noted above, the IPIS program presently has .75 administrative support. Although the numbers in the program are skewed heavily towards the social sciences, our

administrator estimates that they spend a disproportionate percentage of their time (sometimes estimated to be 40-50%) on a small number of M.Eng. (IPIS) students. We feel that our proposal will streamline administration and make it clearer to students where and when they can get assistance. In addition, cancelling the M.Eng. (IPIS) degree may relieve FED from concomitant reporting obligations required by its accreditation process. Operational support for the IPIS program will be absorbed into current administrative positions within NPSIA.

Streamline decision making: At this time, major decisions for the program must be approved by two separate faculties. Bringing the program into FPGA means that any changes to the proposed degree program much more quickly.

Library Resources: Some readings/journals may no longer be necessary if certain courses are not offered. At this time we assess there will be no impact.

Co-operative education: Both IPIS and NPSIA have co-operative education options. There may be some administrative savings in administering these together especially for the co-op office.

Space: At present, IPIS has student and administrative space in Dunton Tower. This would no longer be required as student space would move to NPSIA in Richcraft Hall.

Equipment: None

Graduate Student Funding: The awards established for IPIS students will remain specific to IPIS students, but administered through NPSIA.

Governance: With the elimination of the M.Eng IPIS, the program would be run entirely within NPSIA, in the Faculty of Public and Global Affairs.

Tuition: Students would pay the same fees as for the NPSIA MA.

Program Change Request

A deleted record cannot be edited

Program Delete Proposal

Date Submitted: 10/20/25 2:02 pm

Viewing: **MENG-81IP : M.Eng. Infrastructure Protection and International Security**

Last approved: 10/20/25 1:59 pm

Last edit: 10/20/25 2:02 pm

Last modified by: nataliephelan

Changes proposed by: nataliephelan

In Workflow

1. **IPIS ChairDir GR**
2. **ENG Dean**
3. **ENG GFCC**
4. **ENG FBoard**
5. **PRE SCCASP**
6. SCCASP
7. SQAPC
8. Senate
9. CalEditor

Approval Path

1. 10/20/25 4:54 pm Alex Wilner (alexwilner): Approved for IPIS ChairDir GR
2. 11/03/25 9:49 am Jeffrey Erochko (jeffreyerochko): Approved for ENG Dean
3. 11/03/25 12:30 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
4. 11/27/25 4:02 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG FBoard

History

1. Mar 30, 2015 by sandra
2. Apr 29, 2015 by

vickisaveland
3. Jan 7, 2016 by Jenelle Williams (jenellewilliams)
4. May 5, 2017 by Sandra Bauer (sandrabauer)
5. May 5, 2017 by Sandra Bauer (sandrabauer)
6. Feb 17, 2021 by Heather Moulton (heathermoulton)
7. Feb 21, 2023 by Sandra Bauer (sandrabauer)
8. Oct 20, 2025 by Natalie Phelan (nataliephelan)

Calendar Pages Using this Program: Infrastructure Protection and International Security

Effective Date	2026-27
Workflow	majormod ~~Suspend~~
Program Code	MENG-81IP
Level	Graduate
Faculty	Faculty of Engineering and Design
Academic Unit	Infrastructure Protection and International Security
Degree	Master of Engineering
Title	M.Eng. Infrastructure Protection and International Security

Program Requirements

M.Eng. Infrastructure Protection and International Security (5.0 credits)

Note: Admission to the M.Eng. Infrastructure Protection and International Security is currently closed. Please contact the department if you have any questions.

Requirements - Research project pathway:

1. 1.5 credits in: 1.5

IPIS 5101 [0.5] Critical Infrastructure Protection: Issues and Strategies
IPIS 5105 [0.5] Critical Infrastructure Risk Assessment
IPIS 5106 [0.5] Management of Critical Infrastructure

2. 1.0 credit from: 1.0

IPIS 5104 [0.5] Terrorism and International Security
IPIS 5301 [0.5] Disarmament, Arms Control and Nonproliferation
IPIS 5302 [0.5] Contemporary International Security
IPIS 5303 [0.5] Intelligence Statecraft and International Affairs
IPIS 5304 [0.5] Intelligence and National Security: Policies and Operations
IPIS 5305 [0.5] National Security Policy and Law
IPIS 5306 [0.5] Emergency and Business Continuity Management
IPIS 5320 [0.5] Topics in Infrastructure Security Policy

Or 5000-level courses from the Intelligence and International Affairs (IIA) and Security Defence Policy (SDP) designated fields offered by the Norman Paterson School of International Affairs.

3. 1.5 credit from: 1.5

IPIS 5501 [0.5] Transportation and Aviation Security
IPIS 5504 [0.5] Fundamentals of Fire Safety
IPIS 5505 [0.5] Natural Hazards in Canada: Risk and Impact
IPIS 5507 [0.5] Blast Load Effects on Structures
IPIS 5508 [0.5] Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components
IPIS 5509 [0.5] Introduction to Cybersecurity
IPIS 5520 [0.0] Course IPIS 5520 Not Found

or an engineering course approved by the IPIS Director or Associate Director.

4. 1.0 credit in: 1.0

IPIS 5907 [1.0] Research Project (in the area of the specialization)

Total Credits 5.0

Requirements - Coursework pathway:

1. 1.5 credits in: 1.5

IPIS 5101 [0.5] Critical Infrastructure Protection: Issues and Strategies
IPIS 5105 [0.5] Critical Infrastructure Risk Assessment
IPIS 5106 [0.5] Management of Critical Infrastructure

2. 1.0 credit from: 1.0

IPIS 5104 [0.5] Terrorism and International Security
IPIS 5301 [0.5] Disarmament, Arms Control and Nonproliferation
IPIS 5302 [0.5] Contemporary International Security
IPIS 5303 [0.5] Intelligence Statecraft and International Affairs
IPIS 5304 [0.5] Intelligence and National Security: Policies and Operations
IPIS 5305 [0.5] National Security Policy and Law
IPIS 5306 [0.5] Emergency and Business Continuity Management
IPIS 5320 [0.5] Topics in Infrastructure Security Policy

Or 5000-level courses from the Intelligence and International Affairs (IIA) and Security Defence Policy (SDP) designated fields offered by the Norman Paterson School of International Affairs.

3. 1.5 credit from:	1.5
IPIS 5501 [0.5] Transportation and Aviation Security	
IPIS 5504 [0.5] Fundamentals of Fire Safety	
IPIS 5505 [0.5] Natural Hazards in Canada: Risk and Impact	
IPIS 5507 [0.5] Blast Load Effects on Structures	
IPIS 5508 [0.5] Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components	
IPIS 5509 [0.5] Introduction to Cybersecurity	
IPIS 5520 [0.0] Course IPIS 5520 Not Found	
or an engineering course approved by the IPIS Director or Associate Director.	
4. 1.0 credit from graduate courses from the Faculty of Engineering and Design that have been selected in consultation with, and approved by, the MIPIS Director and Associate Director.	1.0
Total Credits	5.0

New Resources

Summary	Transfer of MIPIS degree to NPSIA, de-activation of MEng.
Rationale for change	The IPIS program has not attracted significant numbers of students for several years. The MEng degree, in particular, has struggled to recruit students. To increase program efficiencies, we propose transferring the MIPIS degree to NPSIA. The position of IPIS program director (a NPSIA faculty member) will become Associate Director, MIPIS. This change deletes the MEng programs from the calendar.
Transition/Implementation	Minimum transition is required given that the IPIS Director is a NPSIA faculty member. Admission to the MEng was closed as of September 2025.

Program reviewer comments

Key: 1121

Program Change Request

A deleted record cannot be edited

Program Delete Proposal

Date Submitted: 10/20/25 2:03 pm

Viewing: **MENG-IPCY : M.Eng. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity**

Last approved: 10/20/25 1:59 pm

Last edit: 10/20/25 2:03 pm

Last modified by: nataliephelan

Changes proposed by: nataliephelan

In Workflow

1. **IPIS ChairDir GR**
2. **ENG Dean**
3. **ENG GFCC**
4. **ENG FBoard**
5. **PRE SCCASP**
6. **SCCASP**
7. SQAPC
8. Senate
9. CalEditor

Approval Path

1. 10/20/25 4:54 pm Alex Wilner (alexwilner): Approved for IPIS ChairDir GR
2. 11/03/25 9:49 am Jeffrey Erochko (jeffreyerochko): Approved for ENG Dean
3. 11/03/25 12:30 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
4. 11/27/25 4:02 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG FBoard
5. 01/15/26 9:59 am Natalie Phelan (nataliephelan): Approved for PRE SCCASP

History

1. Jul 18, 2023 by Sandra Bauer (sandrabauer)
2. Jul 8, 2025 by Natalie Phelan (nataliephelan)
3. Oct 20, 2025 by Natalie Phelan (nataliephelan)

Calendar Pages Using this Program	Infrastructure Protection and International Security Cybersecurity (Collaborative Specialization)

Effective Date	2026-27
Workflow	majormod ~~Suspend~~
Program Code	MENG-IPCY
Level	Graduate
Faculty	Faculty of Engineering and Design
Academic Unit	Infrastructure Protection and International Security
Degree	Master of Engineering
Title	M.Eng. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity

Program Requirements

M.Eng. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity (5.0 credits)

Note: Admission to the M.Eng. Infrastructure Protection and International Security is currently closed. Please contact the department if you have any questions.

Requirements - Research project pathway:

1. **1.0 credit in:** 1.0
   CYBR 5000 [1.0] Science and Social Science of Cybersecurity
2. **1.5 credits in:** 1.5
   IPIS 5101 [0.5] Critical Infrastructure Protection: Issues and Strategies
   IPIS 5105 [0.5] Critical Infrastructure Risk Assessment

IPIS 5106 [0.5] Management of Critical Infrastructure

3. 0.5 credit from: 0.5

IPIS 5104 [0.5] Terrorism and International Security
IPIS 5301 [0.5] Disarmament, Arms Control and Nonproliferation
IPIS 5302 [0.5] Contemporary International Security
IPIS 5303 [0.5] Intelligence Statecraft and International Affairs
IPIS 5304 [0.5] Intelligence and National Security: Policies and Operations
IPIS 5305 [0.5] National Security Policy and Law
IPIS 5306 [0.5] Emergency and Business Continuity Management
IPIS 5320 [0.5] Topics in Infrastructure Security Policy

Or 5000-level courses from the Intelligence and International Affairs (IIA) and Security Defence Policy (SDP) designated fields offered by the Norman Paterson School of International Affairs.

4. 1.0 credit from: 1.0

IPIS 5501 [0.5] Transportation and Aviation Security
IPIS 5504 [0.5] Fundamentals of Fire Safety
IPIS 5505 [0.5] Natural Hazards in Canada: Risk and Impact
IPIS 5507 [0.5] Blast Load Effects on Structures
IPIS 5508 [0.5] Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components
IPIS 5509 [0.5] Introduction to Cybersecurity
IPIS 5520 [0.0] Course IPIS 5520 Not Found

or an engineering course approved by the IPIS Director or Associate Director.

5. 1.0 credit in: 1.0

IPIS 5907 [1.0] Research Project (in the area of the specialization)

Total Credits 5.0

Requirements - Coursework pathway:

1. 1.0 credit in: 1.0

CYBR 5000 [1.0] Science and Social Science of Cybersecurity

2. 1.5 credits in: 1.5

IPIS 5101 [0.5] Critical Infrastructure Protection: Issues and Strategies
IPIS 5105 [0.5] Critical Infrastructure Risk Assessment
IPIS 5106 [0.5] Management of Critical Infrastructure

3. 1.0 credit from: 1.0

IPIS 5104 [0.5] Terrorism and International Security
IPIS 5301 [0.5] Disarmament, Arms Control and Nonproliferation
IPIS 5302 [0.5] Contemporary International Security
IPIS 5303 [0.5] Intelligence Statecraft and International Affairs
IPIS 5304 [0.5] Intelligence and National Security: Policies and Operations
IPIS 5305 [0.5] National Security Policy and Law
IPIS 5306 [0.5] Emergency and Business Continuity Management
IPIS 5320 [0.5] Topics in Infrastructure Security Policy

Or 5000-level courses from the Intelligence and International Affairs (IIA) and Security Defence Policy (SDP) designated fields offered by the Norman Paterson School of International Affairs.

4. 1.0 credit from:		1.0
IPIS 5501 [0.5]	Transportation and Aviation Security	
IPIS 5504 [0.5]	Fundamentals of Fire Safety	
IPIS 5505 [0.5]	Natural Hazards in Canada: Risk and Impact	
IPIS 5507 [0.5]	Blast Load Effects on Structures	
IPIS 5508 [0.5]	Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components	
IPIS 5509 [0.5]	Introduction to Cybersecurity	
IPIS 5520 [0.0]	Course IPIS 5520 Not Found	
or an engineering course approved by the IPIS Director or Associate Director.		
5. 0.5 credit in approved electives in the area of the specialization		0.5
Total Credits		5.0

New Resources

Summary	Transfer of MIPIS degree to NPSIA, de-activation of MEng.
Rationale for change	The IPIS program has not attracted significant numbers of students for several years. The MEng degree, in particular, has struggled to recruit students. To increase program efficiencies, we propose transferring the MIPIS degree to NPSIA. The position of IPIS program director (a NPSIA faculty member) will become Associate Director, MIPIS. This change deletes the MEng programs from the calendar.
Transition/Implementation	Minimum transition is required given that the IPIS Director is a NPSIA faculty member. Admission to the MEng has been closed as of September 2025.

Program reviewer comments

Key: 2199

Program Change Request

Date Submitted: 09/19/25 11:05 am

Viewing: TBD-2200 : M. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity

Last approved: 04/17/23 5:30 pm

Last edit: 01/26/26 4:49 pm

Last modified by: nataliephelan

Changes proposed by: valeriepercival

In Workflow

1. IPIS ChairDir GR
2. CYBR ChairDir GR
3. INAF ChairDir GR
4. ENG GFCC
5. PA GFCC
6. ENG FBoard
7. PA FBoard
8. PRE SCCASP
9. SCCASP
10. CalEditor

Approval Path

1. 09/22/25 3:55 pm Alex Wilner (alexwilner): Approved for IPIS ChairDir GR
2. 09/22/25 3:55 pm Alex Wilner (alexwilner): Approved for CYBR ChairDir GR
3. 09/23/25 11:48 am Yiagadeesen Samy (yiagadeesensamy): Approved for INAF ChairDir GR
4. 11/03/25 9:50 am Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
5. 11/10/25 4:30 pm Vandna Bhatia (vandnabhatia): Approved for PA GFCC
6. 11/27/25 4:02 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG FBoard
7. 11/27/25 4:33 pm Vandna Bhatia

(vandnabhatia): Approved for PA FBoard
8. 01/15/26 10:21 am Natalie Phelan (nataliephelan): Approved for PRE SCCASP

History

1. Apr 3, 2023 by Sandra Bauer (sandrabauer)
2. Apr 17, 2023 by Sandra Bauer (sandrabauer)

Calendar Pages Using this Program	Infrastructure Protection and International Security Cybersecurity (Collaborative Specialization)
Effective Date	2026-27
Workflow	minormod
Program Code	TBD-2200
Level	Graduate
Faculty	Faculty of Public Affairs ~~Engineering and Design~~ ~~Faculty of Public Affairs~~
Academic Unit	Norman Paterson School of International Affairs ~~Infrastructure Protection and International Security~~ Cybersecurity
Degree	Master of Infrastructure Protection and International Security
Title	M. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity

Program Requirements

M. Infrastructure Protection and International Security with Collaborative Specialization in Cybersecurity (5.0 credits)

Requirements:

1. 1.0 credit in: 1.0

CYBR 5000 [1.0]	Science and Social Science of Cybersecurity	
~~**2. 2.0 credits in:**~~		~~2.0~~
2. 1.5 credits in:		1.5
IPIS 5101 [0.5]	Critical Infrastructure Protection: Issues and Strategies	
~~IPIS 5103 [0.0]~~	~~Course IPIS 5103 Not Found~~	
IPIS 5105 [0.5]	Critical Infrastructure Risk Assessment	
IPIS 5106 [0.5]	Management of Critical Infrastructure	
~~**3. 1.0 credit from:**~~		~~1.0~~
3. 1.5 credit from (see Note 1 below):		1.5
IPIS 5104 [0.5]	Terrorism and International Security	
IPIS 5301 [0.5]	Disarmament, Arms Control and Nonproliferation	
IPIS 5302 [0.5]	Contemporary International Security	
IPIS 5303 [0.5]	Intelligence Statecraft and International Affairs	
IPIS 5304 [0.5]	Intelligence and National Security: Policies and Operations	
IPIS 5305 [0.5]	National Security Policy and Law	
IPIS 5306 [0.5]	Emergency and Business Continuity Management	
IPIS 5320 [0.5]	Topics in Infrastructure Security Policy	

~~Or 5000-level courses from the IIA or SDP designated fields offered by the Norman Paterson School of International Affairs.~~

4. 0.5 credit from:		0.5
IPIS 5501 [0.5]	Transportation and Aviation Security	
IPIS 5504 [0.5]	Fundamentals of Fire Safety	
IPIS 5505 [0.5]	Natural Hazards in Canada: Risk and Impact	
IPIS 5507 [0.5]	Blast Load Effects on Structures	
IPIS 5508 [0.5]	Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components	
~~IPIS 5509 [0.5]~~	~~Introduction to Cybersecurity~~	
~~IPIS 5520 [0.0]~~	~~Course IPIS 5520 Not Found~~	
5. 0.5 credit in IPIS 5509 Introduction to Cybersecurity, or a 0.5 credit course with cybersecurity content, with approval of the graduate supervisor		0.5
Total Credits		5.0

Notes:

1. With advanced approval from the M.IPIS Associate Director, students may take 1.0 INAF credits from the National Security, Intelligence and Defence Designated Field Courses, NPSIA MA Program.

2. With advanced approval from the M.IPIS Associate Director, students may take a maximum of 0.5 credits in INAF or IPIS courses, or courses from related programs.

New Resources	No New Resources
Summary	Reflects calendar changes associated with proposed transfer of MIPIS degree to NPSIA With the proposed transfer of the MIPIS degree to NPSIA, certain courses are

Rationale for change	not available. Calendar language edited to reflect these proposed changes and to ensure consistency with calendar language for other NPSIA programs.
Transition/Implementation	Implementation 2026. No impact on faculty resources as MIPIS director is a NPSIA faculty member.
Program reviewer comments	**vandnabhatia (10/23/25 5:13 pm):** Removed deactivated courses (IPIS 5103, 5520). **nataliephelan (01/26/26 4:49 pm):** In SCCASP on Jan 20 2026, it was noticed that there needs to be at least 1.5 credits in the collaborative specialisation and the requirements only called for 1.0 credit. After consulting with A. Wilner, item 5 has been reworded so it requires either IPIS 5509 or an approved course in cybersecurity, thus bringing the total specialisation credits to 1.5.

Key: 2200

Program Change Request

Date Submitted: 09/19/25 11:04 am

Viewing: **MIPIS-43 : M. Infrastructure Protection and International Security**

Last approved: 07/18/23 1:28 pm

Last edit: 01/07/26 10:25 am

Last modified by: nataliephelan

Changes proposed by: valeriepercival

In Workflow

1. **IPIS ChairDir GR**
2. **INAF ChairDir GR**
3. **ENG Dean**
4. **PA Dean**
5. **ENG GFCC**
6. **PA GFCC**
7. **ENG FBoard**
8. **PA FBoard**
9. **PRE SCCASP**
10. SCCASP
11. SQAPC
12. Senate
13. CalEditor

Approval Path

1. 09/22/25 3:55 pm Alex Wilner (alexwilner): Approved for IPIS ChairDir GR
2. 09/23/25 11:48 am Yiagadeesen Samy (yiagadeesensamy): Approved for INAF ChairDir GR
3. 11/03/25 9:48 am Jeffrey Erochko (jeffreyerochko): Approved for ENG Dean
4. 11/05/25 11:57 am Vandna Bhatia (vandnabhatia): Approved for PA Dean
5. 11/10/25 8:46 am Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
6. 11/10/25 4:30 pm Vandna Bhatia (vandnabhatia):

Approved for PA GFCC
7. 11/27/25 4:02 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG FBoard
8. 11/27/25 4:30 pm Vandna Bhatia (vandnabhatia): Approved for PA FBoard

History

1. Jun 2, 2014 by sandra
2. Jun 2, 2014 by sandra
3. Jun 2, 2014 by sandra
4. Mar 5, 2015 by sandra
5. Apr 29, 2015 by vickisaveland
6. Apr 29, 2015 by vickisaveland
7. May 11, 2015 by sandra
8. May 20, 2015 by sandra
9. Jan 7, 2016 by Jenelle Williams (jenellewilliams)
10. May 5, 2017 by Sandra Bauer (sandrabauer)
11. May 5, 2017 by Sandra Bauer (sandrabauer)
12. May 5, 2017 by Sandra Bauer (sandrabauer)
13. Feb 17, 2021 by Heather Moulton (heathermoulton)
14. Jul 18, 2023 by Sandra Bauer (sandrabauer)

Calendar Pages Using this Program: Infrastructure Protection and International Security

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Program Code	MIPIS-43

Level	Graduate
Faculty	Faculty of Public Affairs ~~Engineering and Design~~ ~~Faculty of Public Affairs~~
Academic Unit	Norman Paterson School of International Affairs ~~Infrastructure Protection and International Security~~
Degree	Master of Infrastructure Protection and International Security
Title	M. Infrastructure Protection and International Security

Program Requirements

M. Infrastructure Protection and International Security (5.0 credits)

Requirements:

~~**1. 2.0 credits in:**~~	~~2.0~~
1. 1.5 credits in:	1.5
IPIS 5101 [0.5] Critical Infrastructure Protection: Issues and Strategies	
~~IPIS 5103 [0.0] Course IPIS 5103 Not Found~~	
IPIS 5105 [0.5] Critical Infrastructure Risk Assessment	
IPIS 5106 [0.5] Management of Critical Infrastructure	
2. 1.5 credit from (See Note 1 below):	1.5
IPIS 5104 [0.5] Terrorism and International Security	
IPIS 5301 [0.5] Disarmament, Arms Control and Nonproliferation	
IPIS 5302 [0.5] Contemporary International Security	
IPIS 5303 [0.5] Intelligence Statecraft and International Affairs	
IPIS 5304 [0.5] Intelligence and National Security: Policies and Operations	
IPIS 5305 [0.5] National Security Policy and Law	
IPIS 5306 [0.5] Emergency and Business Continuity Management	
IPIS 5320 [0.5] Topics in Infrastructure Security Policy	
3. 1.0 credit from:	1.0
IPIS 5501 [0.5] Transportation and Aviation Security	
IPIS 5504 [0.5] Fundamentals of Fire Safety	
IPIS 5505 [0.5] Natural Hazards in Canada: Risk and Impact	
IPIS 5507 [0.5] Blast Load Effects on Structures	
IPIS 5508 [0.5] Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components	
IPIS 5509 [0.5] Introduction to Cybersecurity	
~~IPIS 5520 [0.0] Course IPIS 5520 Not Found~~	
~~4. 1.0 credit normally comprised of courses with CIVE, INAF or IPIS course designations, but may also be chosen from related programs that have been selected in consultation with, and approved by, the MIPIS~~	~~1.0~~

~~Director and Associate Director and associated faculty when necessary.~~

4. 1.0 elective credits (See Note 2 below)	1.0
Total Credits	5.0

Notes:

1. With advanced approval from the M.IPIS Associate Director, students may take 1.0 INAF credits from the National Security, Intelligence and Defence Designated Field Courses, NPSIA MA Program.

2. With advanced approval from the M.IPIS Associate Director, students may take a maximum of 1.5 credits in INAF or IPIS courses, or courses from related programs with a maximum 1.0 credits at the 4000 level.

New Resources	No New Resources
Summary	Reflects calendar changes associated with the proposed transfer of MIPIS degree to NPSIA
Rationale for change	We propose transferring the MIPIS degree from the IPIS program to NPSIA. Calendar changes are required to reflect this transfer. This calendar language is also edited for consistency with NPSIA MA program.
Transition/Implementation	Minimal disruptive impact given IPIS director is a NPSIA faculty member. Anticipate program would be transferred by Fall 2026.
Program reviewer comments	**vandnabhatia (11/05/25 11:55 am):** Removed deactivated courses (IPIS 5103, IPIS 5520)

Key: 1047

Program Change Request

Date Submitted: 09/19/25 11:05 am

Viewing: **TBD-1206 : R-GR-ADMREQT-IPIS (M.I.P.I.S.) ~~(M.I.P.I.S., M.Eng.I.P.I.S.)~~**

Last approved: 03/17/17 5:14 pm

Last edit: 09/19/25 11:05 am

Last modified by: valeriepercival

Changes proposed by: valeriepercival

In Workflow

1. **IPIS ChairDir GR**
2. **INAF ChairDir GR**
3. **ENG Dean**
4. **PA Dean**
5. **ENG GFCC**
6. **PA GFCC**
7. **ENG FBoard**
8. **PA FBoard**
9. **PRE SCCASP**
10. **SCCASP**
11. SQAPC
12. Senate
13. CalEditor

Approval Path

1. 09/22/25 3:55 pm Alex Wilner (alexwilner): Approved for IPIS ChairDir GR
2. 09/22/25 4:17 pm Yiagadeesen Samy (yiagadeesensamy): Approved for INAF ChairDir GR
3. 11/03/25 9:49 am Jeffrey Erochko (jeffreyerochko): Approved for ENG Dean
4. 11/05/25 11:51 am Vandna Bhatia (vandnabhatia): Approved for PA Dean
5. 11/10/25 8:47 am Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
6. 11/10/25 4:30 pm Vandna Bhatia (vandnabhatia):

Approved for PA GFCC
7. 11/27/25 4:03 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG FBoard
8. 11/27/25 4:30 pm Vandna Bhatia (vandnabhatia): Approved for PA FBoard
9. 01/15/26 10:13 am Natalie Phelan (nataliephelan): Approved for PRE SCCASP

History

1. Jun 18, 2015 by Sandra Bauer (sandrabauer)
2. Jan 20, 2016 by Sandra Bauer (sandrabauer)
3. Mar 17, 2017 by thomasmorrice

Calendar Pages Using this Program: Infrastructure Protection and International Security

Effective Date	2026-27
Workflow	majormod
Program Code	TBD-1206
Level	Graduate
Faculty	Faculty of Public Affairs ~~Engineering and Design~~ ~~Faculty of Public Affairs~~
Academic Unit	Norman Paterson School of International Affairs ~~Infrastructure Protection and International Security~~
Degree	
Title	R-GR-ADMREQT-IPIS (M.I.P.I.S.) ~~(M.I.P.I.S., M.Eng.I.P.I.S.)~~

Program Requirements

~~Admission Requirements Proficiency in English is necessary to pursue graduate studies at CarletonUniversity.~~Admission Requirements

The ~~All applicants whose first~~ language of instruction at NPSIA is English. Applicants whose first language is not English need to demonstrate their proficiency in English. Graduate calendar regulation 3.6 lists ~~must satisfy this requirement as per~~ the ways in which applicants can satisfy this requirement. ~~General Regulations.~~ Applicants who present their most recent degree and transcripts from a Canadian institution are exempt from language proficiency requirements.

M. Infrastructure Protection and International Security

The minimum requirement for admission into the Master of Infrastructure Protection and International Security (M.IPIS) is a B.A. ~~M. I.P.I.S.is aB.A.~~Honours degree in a discipline related to International Affairs or a Bachelor's degree in Science or Engineering. Students will normally be expected to have a B+ average (or higher) to be considered for admission.

~~Students without a background in engineering or science will be required to complete IPIS 5003 [0.0] Course IPIS 5003 Not Found, which will be in addition to the regular degree requirements and is to be completed in the first fall term in which the student is registered. IPIS 5003 is a prerequisite for the required course in Infrastructure Engineering Principles, and for other engineeringelectives.M.Eng.Infrastructure Protection and International Security The minimum requirement for admission into theM.Eng.I.P.I.S. is aB.Eng.degree orequivalent.Students will normally be expected to have a B+ average (or higher) to be considered foradmission.Students without a background in the social sciences or policy work in the Canadian context will be required to complete IPIS 5002 [0.0] Course IPIS 5002 Not Found, which will be in addition to the regular degree requirements and is to be completed in the first fall term in which the student isregistered.~~ Accelerated Pathway

The accelerated pathway to the M.IPIS ~~Master of Infrastructure Protection and International Security and the Master of Engineering in Infrastructure Protection and International Security~~ is a flexible and individualized plan of graduate study for students in their final year of a Carleton undergraduate degree in a related discipline.

Students in their third year of study in their undergraduate program who are interested in the accelerated pathway should consult with the ~~Director and~~ Associate Director M. ~~in the I.P.I.S.~~ IPIS Program to determine if the accelerated pathway is appropriate for them and to confirm their selection of courses and Honours project/thesis supervisor for their final year of undergraduate studies.

~~Minimum overall CGPA of A-~~

~~Accelerated Pathway RequirementsIPIS courses at the 5000 level with a grade of B+ or higher~~Students may receive advanced standing with transfer of credit of up to 1.0 credit which can reduce their time to completion.

To be eligible to participate ~~Students without a background~~ in the accelerated pathway, students must have a minimum overall CGPA of A- ~~social sciences or policy work~~ in undergraduate courses. ~~the Canadian context will be required to complete IPIS 5002 [0.0] Course IPIS 5002 Not Found, which will be in addition to the regular degree requirements and is to be completed in the first fall term in which the student is registered.~~

New Resources	No New Resources
Summary	Transfer of MIPIS degree to NPSIA, de-activiation of MEng
Rationale for change	The IPIS program has not attracted significant numbers of students for several years. The MEng degree in particulate has struggled to recruit students. To increase program efficiencies, we propose transferring the MIPIS degree to NPSIA. The position IPIS program director (a NPSIA faculty member) will become Associate Director, MIPIS. We propose adjusting the admissions language as outlined to be consistent with the NPSIA admissions requirements on language, and have reflected the de-activation of the MEng components in the adjusted calendar language.
Transition/Implementation	Minimum transition is required give that the IPIS Director is a NPSIA faculty member.

Program reviewer comments

Key: 1206

Program Change Request

Date Submitted: 11/05/25 1:27 pm

Viewing: **TBD-1292 : Graduate Diplomas in Infrastructure Protection and International Security**

Last approved: 03/13/24 1:56 pm

Last edit: 11/05/25 1:45 pm

Last modified by: vandnabhatia

Changes proposed by: nataliephelan

In Workflow

1. **IPIS ChairDir GR**
2. **PA GFCC**
3. **PA FBoard**
4. **ENG GFCC**
5. **ENG FBoard**
6. **PA FBoard**
7. **PRE SCCASP**
8. SCCASP
9. CalEditor

Approval Path

1. 11/05/25 1:28 pm Alex Wilner (alexwilner): Approved for IPIS ChairDir GR
2. 11/10/25 4:30 pm Vandna Bhatia (vandnabhatia): Approved for PA GFCC
3. 11/27/25 4:34 pm Vandna Bhatia (vandnabhatia): Approved for PA FBoard
4. 12/11/25 3:48 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
5. 12/17/25 1:43 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG FBoard
6. 01/06/26 10:39 am Vandna Bhatia (vandnabhatia): Approved for PA FBoard

History

1. Jan 7, 2016 by Jenelle Williams (jenellewilliams)
2. Oct 24, 2016 by Sandra Bauer (sandrabauer)
3. Mar 9, 2017 by lesliemacdonaldhicks
4. May 5, 2017 by Sandra Bauer (sandrabauer)
5. May 5, 2017 by Sandra Bauer (sandrabauer)
6. May 5, 2017 by Sandra Bauer (sandrabauer)
7. May 5, 2017 by Sandra Bauer (sandrabauer)
8. Mar 13, 2024 by Sandra Bauer (sandrabauer)

Calendar Pages Using this Program: Infrastructure Protection and International Security

Effective Date	2026-27
Workflow	minormod
Program Code	TBD-1292
Level	Graduate
Faculty	Faculty of Engineering and Design Faculty of Public Affairs
Academic Unit	Infrastructure Protection and International Security
Degree	Graduate Diploma
Title	Graduate Diplomas in Infrastructure Protection and International Security

Program Requirements

Graduate Diploma in Infrastructure Protection and International Security (3.0 credits)

Type 2 (Concurrent), Type 3 (Direct Entry)

Requirements:

1. 1.5 credits in:			1.5
	IPIS 5101 [0.5]	Critical Infrastructure Protection: Issues and Strategies	
	IPIS 5105 [0.5]	Critical Infrastructure Risk Assessment	
	IPIS 5106 [0.5]	Management of Critical Infrastructure	
~~**2. 1.0 credit from** electives:~~			~~1.0~~
2. 1.5 credit from electives:			1.5
	IPIS 5104 [0.5]	Terrorism and International Security	
	IPIS 5301 [0.5]	Disarmament, Arms Control and Nonproliferation	
	IPIS 5302 [0.5]	Contemporary International Security	
	IPIS 5303 [0.5]	Intelligence Statecraft and International Affairs	
	IPIS 5304 [0.5]	Intelligence and National Security: Policies and Operations	
	IPIS 5305 [0.5]	National Security Policy and Law	
	IPIS 5320 [0.5]	Topics in Infrastructure Security Policy	
	IPIS 5501 [0.5]	Transportation and Aviation Security	
	IPIS 5504 [0.5]	Fundamentals of Fire Safety	
	IPIS 5505 [0.5]	Natural Hazards in Canada: Risk and Impact	
	IPIS 5507 [0.5]	Blast Load Effects on Structures	
	IPIS 5508 [0.5]	Introduction to Explosives and Explosion Effects as they relate to Infrastructure and its Components	
	~~IPIS 5520 [0.0] Course IPIS 5520 Not Found~~		
~~**3. 0.5 credit in:**~~			~~0.5~~
	~~a) for students without a B.Eng. in Civil Engineering (or equivalent):~~		
	~~IPIS 5103 [0.0] Course IPIS 5103 Not Found~~		
	~~b) for students with a B.Eng. in Civil Engineering (or equivalent):~~		
	~~0.5 additional credit from electives in Item 2 above~~		
Total Credits			3.0

New Resources	No New Resources
Summary	Removed item 3 and added its 0.5 credit into item 2.
Rationale for change	With the closure of the MENG side of the IPIS program, IPIS 5103 will be deleted. This leaves all GDIP students seeking an additional elective in item 3, so we have collapsed the two items into one to avoid redundancy.
Transition/Implementation	The unit will work with any existing students who need IPIS 5103 (of which there may be none). Moving forward, all GDIP students will follow the new requirements described here.

Program reviewer comments	**vandnabhatia (11/05/25 1:45 pm):** Removed deactivated course, IPIS 5520.

Key: 1292

Course Change Request

A deleted record cannot be edited

Course Delete Proposal

Date Submitted: 09/18/25 12:21 pm

Viewing: IPIS 5908 : Research Paper

Last approved: 03/25/21 5:21 am

Last edit: 09/19/25 9:39 am

Changes proposed by: valeriepercival

In Workflow

1. **IPIP ChairDir GR**
2. **PA Dean**
3. **PA GFCC**
4. **PA FBoard**
5. **PRE SCCASP**
6. SCCASP
7. SQAPC
8. Senate
9. CalEditor
10. Banner

Approval Path

1. 11/05/25 12:45 pm Alex Wilner (alexwilner): Approved for IPIP ChairDir GR
2. 11/05/25 12:57 pm Vandna Bhatia (vandnabhatia): Approved for PA Dean
3. 11/10/25 4:30 pm Vandna Bhatia (vandnabhatia): Approved for PA GFCC
4. 11/27/25 4:30 pm Vandna Bhatia (vandnabhatia): Approved for PA FBoard

History

1. Mar 6, 2015 by sandra
2. Dec 23, 2015 by Jenelle Williams (jenellewilliams)

3. Mar 13, 2019 by mikelabreque
4. Mar 25, 2021 by Sarah Cleary (sarahcleary)

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Level	Graduate
Course Code	IPIS
Course Number	5908
Title	Research Paper
Title (short)	Research Paper
Faculty	Faculty of Public Affairs
Academic Unit	Infrastructure Protection FPA
Credit Value	1.0
Special/Selected Topics	
Significant Experiential Learning	Applied Research Project
Course Description	Students may be given permission to conduct independent research under the general guidance of a research supervisor, examining an approved policy-relevant topic that integrates the infrastructure, engineering and security elements of their program of study.
Prerequisite(s)	permission of the MIPIS Program Director or Graduate Supervisor.
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	

Grade Mode	Standard Letter Grade
Schedule Type	*Research Essay *May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	As part of the proposed transfer of the M.IPIS program to NPSIA, this course will no longer be offered.
Rationale for deactivation	We propose transferring the administration of the MIPIS program to NPSIA and deactivating the MEng component of the degree. With the transfer to NPSIA, this course will no longer be offered.
Course reviewer comments	**nataliephelan (09/19/25 9:39 am):** Changed to major mod workflow; deletion of capstone.

Key: 3064

Preview Bridge

Program Change Request

Date Submitted: 10/01/25 4:05 pm

Viewing: **BIT-B004 : Information Resource Management**

Last approved: 04/19/24 9:30 am

Last edit: 10/01/25 4:05 pm

Last modified by: alisonjabi

Changes proposed by: alisonjabi

In Workflow

1. **BIT ChairDir UG**
2. **ENG Dean**
3. **BIT FCC**
4. **BIT FBoard**
5. **PRE SCCASP**
6. SCCASP
7. SQAPC
8. Senate
9. PRE CalEditor
10. CalEditor

Approval Path

1. 10/16/25 10:55 am Rob Teather (robteather): Approved for BIT ChairDir UG
2. 10/17/25 10:19 am Samuel Ajila (samuelajila): Approved for ENG Dean
3. 11/25/25 8:53 am Ali Arya (aliarya): Approved for BIT FCC
4. 01/16/26 2:38 pm Ali Arya (aliarya): Approved for BIT FBoard

History

1. Jan 7, 2016 by Hana Jabi (hanajabi)
2. Jan 27, 2016 by pattypatrick
3. May 2, 2016 by Sandra Bauer (sandrabauer)
4. May 2, 2016 by Sandra

Bauer (sandrabauer)
5. May 2, 2016 by Sandra Bauer (sandrabauer)
6. Jan 24, 2018 by Hana Jabi (hanajabi)
7. Mar 26, 2020 by Hana Jabi (hanajabi)
8. Apr 26, 2021 by Alison Jabi (alisonjabi)
9. May 10, 2021 by Natalie Phelan (nataliephelan)
10. Apr 20, 2023 by Alison Jabi (alisonjabi)
11. Apr 19, 2024 by Natalie Phelan (nataliephelan)

Calendar Pages Using this Program: Information Technology

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Program Code	BIT-B004
Level	Undergraduate
Faculty	Faculty of Engineering and Design
Academic Unit	School of Information Technology
Degree	Bachelor of Information Technology
Title	Information Resource Management

Program Requirements

Information Resource Management
B.I.T. (20.0 credits)

A. Credits Included in the Major CGPA (10.0 credits)

1. **2.5 credits in:** 2.5

BIT 1400 [0.5]	Introduction to Programming and Problem Solving
IRM 1002 [0.5]	Reference and Information Services

	IRM 1005 [0.5]	Web Interface Development	
	IRM 1006 [0.5]	Subject Analysis and Indexing	
	IRM 1007 [0.5]	Cataloguing	
2.	**3.0 credits in:**		3.0
	BIT 2008 [0.5]	Multimedia Data Management	
	BIT 2400 [0.5]	Intermediate Programming	
	IRM 2002 [0.5]	Legal and Business Information	
	IRM 2003 [0.5]	Classification	
	IRM 2004 [0.5]	Information Management and Digital Preservation	
	IRM 2005 [0.5]	Advanced Cataloguing	
3.	**2.5 credits in:**		2.5
	IRM 3001 [0.5]	Scientific and Medical Information	
	IRM 3003 [0.5]	Legal Issues in Information Resource Management	
	IRM 3006 [0.5]	Data Analysis and Research Methodology	
	~~IRM 3007 [0.0]~~	~~Course IRM 3007 Not Found~~	
	IRM 3008 [0.5]	Metadata for IRM	
	IRM 3009 [0.0]	Information Backup and Recovery	
4.	**2.0 credits in:**		2.0
	IRM 4000 [0.5]	Library Software	
	IRM 4004 [0.5]	Applied Machine Learning and Big Data Analytics	
	IRM 4900 [1.0]	IRM Capstone Project	
B. Credits Not Included in the Major (10.0 credits)			
5.	**1.5 credits in:**		1.5
	IRM 1003 [0.5]	Collections management	
	IRM 1004 [0.5]	Reader's Advisory Services	
	IRM 1008 [0.5]	Introduction to Information Resource Management	
6.	**1.5 credits in:**		1.5
	BIT 2001 [0.5]	Introduction to Business	
	BIT 2009 [0.5]	Statistics for Technology	
	IRM 2006 [0.5]	Data Visualization	
7.	**1.0 credit in:**		1.0
	CCDP 3006 [0.5]	Communication Skills for IRM	
	IRM 3004 [0.5]	Project management	
8.	**1.0 credit in:**		1.0
	IRM 4001 [0.5]	Archives and Special Collections	
	IRM 4005 [0.5]	Introduction to Deep Learning	
9.	**1.0 credit in** French Language (see Note 2, below)		1.0
10.	**4.0 credits in** electives to be fulfilled by courses taken to complete a Minor (see Note 1, below)		4.0
Total Credits			20.0

Notes:

1. **Additional requirements**: students must complete a Minor in another academic discipline.
2. **Language requirement:** all students are expected to improve their current French language skill by one

credit. Should a student be assessed as fluently bilingual, 1.0 credit of alternate language courses will be accepted. Canadian Aboriginal languages would be encouraged in such cases.

New Resources	No New Resources
Summary	Removing IRM 3007 (Practicum for IRM) and replacing it with new course, IRM 3009 (Information Back-up & Recovery).
Rationale for change	This new course aligns directly with learning objectives of the IRM program. This will enable students to learn more knowledge about backup and recovery in context of information resource management program. In addition, the introduction of this course aligns with the recommendations from our most recent CPR evaluation, where reviewers suggested offering more specialized courses for the IRM program. In our response to the program reviewers, we proposed adding this course, which was subsequently endorsed by the reviewers, as well as the Dean's and Provost's offices.
Transition/Implementation	IRM 3009 replaces IRM 3007 in 3rd year winter. Students who have already completed IRM 3007 will not be required to take IRM 3009.

Program reviewer comments

Key: 1110

Course Change Request

A deleted record cannot be edited

Course Delete Proposal

Date Submitted: 11/07/25 9:22 am

Viewing: IRM 3007 : Practicum for IRM

Last approved: 02/27/19 3:11 am

Last edit: 11/07/25 9:22 am

Changes proposed by: alisonjabi

Calendar Pages referencing this course	Information Resource Management (IRM) Information Technology
Other Courses referencing this course	In The Calendar Prerequisites: IRM 4900 : IRM Capstone Project

In Workflow

1. **BIT ChairDir UG**
2. **ENG Dean**
3. **BIT FCC**
4. **BIT FBoard**
5. **PRE SCCASP**
6. SCCASP
7. SQAPC
8. Senate
9. CalEditor
10. PRE CalEditor
11. Banner

Approval Path

1. 01/19/26 9:55 am Ali Arya (aliarya): Approved for BIT ChairDir UG
2. 01/26/26 11:08 am Samuel Ajila (samuelajila): Approved for ENG Dean
3. 01/26/26 11:28 am Ali Arya (aliarya): Approved for BIT FCC
4. 01/26/26 2:21 pm Ali Arya (aliarya): Approved for BIT FBoard

History

1. Feb 1, 2018 by Sandra Bauer (sandrabauer)
2. Aug 9, 2018 by mikelabreque

3. Feb 27, 2019 by mikelabreque

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Level	Undergraduate
Course Code	IRM
Course Number	3007
Title	Practicum for IRM
Title (short)	Practicum for IRM
Faculty	Faculty of Engineering and Design
Academic Unit	School of Information Technology
Credit Value	0.50
Special/Selected Topics	
Significant Experiential Learning	Field Experience
Course Description	Students will design and complete a project related to information management under the supervision of a faculty member or librarian. This course provides the opportunity to apply knowledge gained in previous courses.
Prerequisite(s)	third-year standing in the Information resource management program.
Class Format	Tutorial/laboratory eight hours a week.
Precluded Courses	
Also listed as	
Piggybacked Courses	
Grade Mode	Standard Letter Grade
Schedule Type	*Laboratory Lecture Tutorial

	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	Practicum for IRM is being replaced by IRM 3009, Information Backup and Recovery. IRM 3007 will be offered for the last time Winter 2026.
Rationale for deactivation	This is in response to the recent CPR evaluation, where reviewers suggested offering more specialized courses for the IRM program.
Course reviewer comments	

Key: 9395

Preview Bridge

Course Change Request

New Course Proposal

Date Submitted: 09/30/25 2:37 pm

Viewing: IRM 3009 : Information Backup and Recovery

Last edit: 09/30/25 2:37 pm

Changes proposed by: alisonjabi

Calendar Pages referencing this course	Information Resource Management (IRM) Information Technology
Programs referencing this course	Information Resource Management

In Workflow

1. **BIT ChairDir UG**
2. **ENG Dean**
3. **BIT FCC**
4. **BIT FBoard**
5. **PRE SCCASP**
6. SCCASP
7. SQAPC
8. Senate
9. CalEditor
10. PRE CalEditor
11. Banner

Approval Path

1. 10/16/25 10:55 am Rob Teather (robteather): Approved for BIT ChairDir UG
2. 10/17/25 10:18 am Samuel Ajila (samuelajila): Approved for ENG Dean
3. 11/25/25 8:54 am Ali Arya (aliarya): Approved for BIT FCC
4. 01/16/26 2:38 pm Ali Arya (aliarya): Approved for BIT FBoard

Effective Date	2026-27
Workflow	majormod
New Resources	No New Resources
Level	Undergraduate
Course Code	IRM

Course Number	3009
Title	Information Backup and Recovery
Title (short)	Info Backup & Recovery
Faculty	Faculty of Engineering and Design
Academic Unit	School of Information Technology
Credit Value	0.50
Special/Selected Topics	Not Applicable
Significant Experiential Learning	Labs
Course Description	Essential knowledge and skills for managing data backups in information resource management, including recovery mechanisms such as crash and failure recovery, undo and redo operations, checkpoints, and rollback or roll forward techniques. Also covers transactions for concurrency control.
Prerequisite(s)	IRM 1008 and BIT 2008.
Class Format	Lectures three hours a week.
Precluded Courses	
Also listed as	
Piggybacked Courses	
Grade Mode	Standard Letter Grade
Schedule Type	Lecture
	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	New course replacing Practicum for IRM (IRM 3007).
Rationale for new	This new course aligns directly with learning objectives of the IRM program. This will enable students to learn more knowledge about backup and recovery in context of information resource management program. In addition, the introduction of this course aligns with the recommendations from our most recent CPR evaluation, where reviewers suggested offering more specialized

course	courses for the IRM program. In our response to the program reviewers, we proposed adding this course, which was subsequently endorsed by the reviewers, as well as the Dean’s and Provost’s offices.

Course reviewer comments

Key: 11380

Preview Bridge

MEMORANDUM

To: Senate Quality Assurance and Planning Committee (SQAPC) for A2s

From: Daniel Stolarski, Associate Chair for Graduate Studies, Department of Physics

CC: Maria DeRosa, Dean of Science

Date: November 27th, 2025

Subject: Major Modification to MSc in Physics. Track A2

Modification Description

The Physics department is creating a new non-thesis MSc pathway without a subfield specialization. The requirements will be that the students complete 3.0 units of graduate Physics courses and a 1.0 unit research project, **or** that the students complete 4.0 units of graduate Physics courses.

The rationale for creating this program is to expand our graduate student enrollment. The current MSc research programs have limited enrollment based on thesis supervisor capacity. This program could potentially take many more students without any new resources. There would be no new courses offered as a result of this program.

Impact on Other Programs

This pathway will not substantively impact other programs. If this program increases overall enrollment, there may be more students in some graduate courses that students in those programs take.

Impact on Learning Outcomes and Curriculum Map

The learning outcomes of this program will be that the students complete Physics courses at the graduate level. This program is very customizable, the students can choose the courses they will take. The program may also give students experience doing research in Physics.

Societal Need (½ page) (***Only applicable if introducing an A1 modification or a new concentration****)*

N/A

Students

The University of Ottawa has a similar program that gets around 10 students per year. In fact, many of those students end up taking graduate courses at Carleton through the Ottawa-Carleton Institute of Physics, so those students could be in the Carleton program in the future.

Resources

This program does not require any new resources in terms of new faculty members, contract instructors, administrative support, space, equipment, or graduate student funding. The only resources used come from graduate courses in Physics having larger enrollment.

Governance (½ page)

N/A

Tuition (½ page) (This section should be completed if your proposed modification changes the degree name or introduces a pathway that results in a new degree)

N/A

Program Change Request

Date Submitted: 09/16/25 9:55 am

Viewing: **MSC-9 : M.Sc. Physics**

Last approved: 05/08/25 12:21 pm

Last edit: 01/26/26 4:35 pm

Last modified by: nataliephelan

Changes proposed by: danielstolarski

In Workflow

1. **PHYS ChairDir GR**
2. **SCI Dean**
3. **SCI GFCC**
4. **SCI JFBoard**
5. **PRE SCCASP**
6. **SCCASP**
7. SQAPC
8. Senate
9. CalEditor

Approval Path

1. 09/16/25 9:57 am Daniel Stolarski (danielstolarski): Approved for PHYS ChairDir GR
2. 09/17/25 2:46 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI Dean
3. 09/23/25 2:05 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI GFCC
4. 11/11/25 11:08 am Jaime Sadgrove (jaimesadgrove): Approved for SCI JFBoard
5. 01/15/26 10:57 am Natalie Phelan (nataliephelan): Approved for PRE SCCASP

History

1. Aug 15, 2014 by sandra
2. May 7, 2017 by Sandra Bauer (sandrabauer)
3. May 7, 2017 by Sandra Bauer (sandrabauer)
4. Oct 11, 2018 by mikelabreque

5. Oct 15, 2018 by mikelabreque
6. Oct 15, 2018 by mikelabreque
7. Oct 15, 2018 by mikelabreque
8. Feb 10, 2020 by Temi Guoti (temiguoti)
9. Feb 17, 2021 by Tong Xu (tongxu)
10. Apr 17, 2025 by Temi Guoti (temiguoti)
11. May 8, 2025 by Natalie Phelan (nataliephelan)
12. May 8, 2025 by Natalie Phelan (nataliephelan)

Calendar Pages Using this Program	Physics
Effective Date	2026-27
Workflow	majormod ~~minormod~~
Program Code	MSC-9
Level	Graduate
Faculty	Faculty of Science
Academic Unit	Department of Physics
Degree	Master of Science
Title	M.Sc. Physics

Program Requirements

Program Requirements

M.Sc. Physics - Particle Physics Thesis Pathway ~~Stream~~ (5.0 credits)

Requirements - Particle Physics Thesis Pathway (5.0 credits):

1. 2.0 credits in: 2.0

PHYS 5601 [0.5]	Experimental Techniques of Nuclear and Elementary Particle Physics
PHYS 5602 [0.5]	Physics of Elementary Particles
PHYS 5701 [0.5]	Intermediate Quantum Mechanics with Applications
PHYS 5702 [0.5]	Relativistic Quantum Mechanics

2. 0.5 credit in: 0.5

PHYS 5002 [0.5]	Statistical Data Analysis Techniques for Physics (or equivalent course in computing physics)

3. 2.5 credits in:		2.5
PHYS 5909 [2.5]	M.Sc. Thesis (defended at an oral examination)	
4. Participation in the seminar series of the Ottawa-Carleton Institute of Physics		
Total Credits		5.0

Notes: ~~**credits):**~~

1. ~~Notes:~~Of the 2.5 credits of course work, no more than 1.5 credits may be fulfilled by Selected Topics such as PHYS 5900 [1.0], PHYS 5901 [0.5].

M.Sc. ~~as PHYS 5900 [1.0], PHYS 5901 [0.5]. In special cases, the requirements may also be met by taking 5.0 credits of coursework.1.0 credit must be the Selected Topics course PHYS 5900M.Sc.~~Physics - Medical Physics Thesis Pathway ~~Stream~~ (5.0 credits)

Requirements - Medical Physics Thesis Pathway (5.0 credits):

1. 0.5 credit in:		0.5
PHYS 5203 [0.5]	Medical Radiation Physics	
2. 0.5 credit in:		0.5
PHYS 5002 [0.5]	Statistical Data Analysis Techniques for Physics (or equivalent course in computing physics)	
3. 0.5 credit from:		0.5
PHYS 5204 [0.5]	Physics of Medical Imaging (for imaging)	
PHYS 5206 [0.5]	Medical Radiotherapy Physics (for therapy)	
PHYS 5207 [0.5]	Radiobiology (for biophysics)	
4. 0.5 credit in PHYS 5208 or an appropriate physics course from an area of physics outside medical physics, chosen from PHYS or PHYJ.		0.5
5. 0.5 credit in PHYS or PHYJ. With approval of the graduate supervisor, an appropriate graduate-level course outside the department of physics can be used.		0.5
6. 2.5 credits in:		2.5
PHYS 5909 [2.5]	M.Sc. Thesis (defended at an oral examination)	
7. Participation in the seminar series of the Ottawa-Carleton Institute for Physics		
Total Credits		5.0

Notes: ~~**credits):**~~

1. ~~Notes:~~Of the 2.5 credits of course work, no more than 1.5 credits may be fulfilled by Selected Topics such as PHYS 5900 [1.0], PHYS 5901 [0.5]. ~~as PHYS 5900 [1.0], PHYS 5901 [0.5].~~

~~In special cases, the requirements may also be met by taking 5.0 credits of coursework.1.0 credit must be the Selected Topics course PHYS 5900 [1.0].~~ M.Sc. Physics - Medical Physics Non-Thesis Pathway ~~in Modern Technology Stream~~ (4.0 credits)

Requirements - Medical Physics Non-Thesis Pathway (4.0 credits):

1. 3.5 credits in:		3.5
PHYS 5203 [0.5]	Medical Radiation Physics	
PHYS 5204 [0.5]	Physics of Medical Imaging	
PHYS 5206 [0.5]	Medical Radiotherapy Physics	
PHYS 5207 [0.5]	Radiobiology	
PHYS 5208 [0.5]	Radiation Protection	

PHYS 5209 [0.5]	Medical Physics Practical Measurements	
PHYS 5211 [0.0]	Anatomy, Physiology and Ethics for Medical Physicists	
2. 0.5 credit in:		0.5
PHYS 5910 [0.0]	M.Sc. Project	
Total Credits		4.0

M.Sc. ~~credits):~~ Physics - Non-Thesis Pathway (4.0 credits)

Requirements - Physics Non-Thesis Pathway (4.0 credits)		
1. 4.0 credits in:		4.0
4.0 credits in graduate courses in Physics		
OR		
3.0 credits in graduate courses in Physics and PHYS 5911 [1.0]		
Total Credits		4.0
~~Requirements - Physics in Modern Technology Stream:~~		
~~**1. 1.0 credit from:**~~		~~1.0~~
~~PHYS 5002 [0.5]~~	~~Statistical Data Analysis Techniques for Physics~~	
~~PHYJ 5003 [0.5]~~	~~Computer Simulations in Physics~~	
~~PHYJ 5004 [0.5]~~	~~Computational Physics: Deterministic Methods~~	
~~PHYJ 5005 [0.5]~~	~~Computational Physics: Stochastic Methods~~	
~~**2. 2.0 credits in** PHYS or PHYJ. With approval of the graduate supervisor, an appropriate graduate-level course outside the department of physics can be used.~~		~~2.0~~
~~**3. 1.0 credit in:**~~		~~1.0~~
~~PHYS 5905 [1.0]~~	~~Work Term~~	
Total Credits		0.0

~~Note:Students enrolled in the physics in modern technology stream are required to complete a work term rather than a research thesis.Students in this stream who wish to pursue a research degree should consult with the graduate supervisor.Although every effort is made to find a work term position for every student enrolled in the physics in modern technology stream, no guarantee of employment can be made.To minimize the likelihood of a work term position not being found, enrollment will be limited to reflect the availability of work term placements.In the event that a work term placement cannot be found, students may fulfill the M.Sc.requirements with 4.0 credits of course work.Guidelines for Completion of Master's Degree With the exception of those students in the physics in modern technology stream, full-time master's candidates are expected to complete all requirements in six terms of registered full-time study.Part-time master's candidates are expected to complete their degree requirements within an elapsed period of three to four calendar years after the date of initial registration.Students in the physics in modern technology stream are normally expected to complete all their requirements in three successive terms of registered full-time study.~~

New Resources	No New Resources
Summary	Two new course based MSc pathways, one in medical physics and one without a specialization.
Rationale for change	We are adding two new pathways to an MSc that do not include a thesis component. This is to be able to recruit more students and grow the program. The Medical Physics MSc will be CAMPEP accredited and students obtaining that degree will be able to work in the medical physics field in Canada.
Transition/Implementation	N/A
Program reviewer comments	**nataliephelan (11/04/25 11:23 am):** Editorial: unrelated to the introduction of new pathways, the Modern Technology requirements have been moved into a separate Courseleaf proposal, as this program is set to undergo quite different revisions from those reflected here and thus needs to be

edited separately.
nataliephelan (11/04/25 11:50 am): Added "in Physics" to the requirements for the MSc Physics coursework pathway, to ensure graduate courses are chosen appropriately.
nataliephelan (01/26/26 4:35 pm): Following SCCASP on Jan 20 2026, M. Neufang agreed that the Guidelines for Completion section is unnecessary as the programs to which it refers (Medical and Particle MSc) follow the normal timeline for completion described in the graduate regulations, so the paragraph has been removed.

Key: 1021

Course Change Request

New Course Proposal

Date Submitted: 09/15/25 4:16 pm

Viewing: PHYS 5910 : M.Sc. Project

Last edit: 09/15/25 4:16 pm

Changes proposed by: danielstolarski

Calendar Pages referencing this course	Physics Physics (PHYS)
Programs referencing this course	M.Sc. Physics

In Workflow

1. **PHYS ChairDir GR**
2. **SCI Dean**
3. **SCI GFCC**
4. **SCI JFBoard**
5. **SCI FBoard**
6. **PRE SCCASP**
7. SCCASP
8. SQAPC
9. Senate
10. CalEditor
11. Banner

Approval Path

1. 09/15/25 4:21 pm Daniel Stolarski (danielstolarski): Approved for PHYS ChairDir GR
2. 09/17/25 2:47 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI Dean
3. 09/23/25 2:06 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI GFCC
4. 11/11/25 11:08 am Jaime Sadgrove (jaimesadgrove): Approved for SCI JFBoard
5. 11/11/25 11:58 am Jaime Sadgrove (jaimesadgrove): Approved for SCI FBoard

Effective Date	2026-27
Workflow	majormod
New Resources	No New Resources
Level	Graduate
Course Code	PHYS

Course Number	5910
Title	M.Sc. Project
Title (short)	M.Sc. Project
Faculty	Faculty of Science
Academic Unit	Department of Physics
Credit Value	0.50
Special/Selected Topics	Not Applicable
Significant Experiential Learning	Applied Research Project
Course Description	Research project for MSc Medical Physics non-thesis option students only.
Prerequisite(s)	restricted to students in the MSc Medical Physics non-thesis program.
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Satisfactory/Unsatisfactory
Schedule Type	*Capstone *Research Project *May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	Associated with major mod MSC-9. New capstone course for students in the proposed non-thesis MSc Medical Physics.
Rationale for new course	New MSc has capstone research project option that requires a course code.
Course reviewer comments	

Key: 11346

Preview Bridge

Course Change Request

New Course Proposal

Date Submitted: 09/15/25 4:17 pm

Viewing: PHYS 5911 : M.Sc. Project

Last edit: 09/15/25 4:17 pm

Changes proposed by: danielstolarski

Calendar Pages referencing this course	Physics Physics (PHYS)
Programs referencing this course	M.Sc. Physics

In Workflow

1. **PHYS ChairDir GR**
2. **SCI Dean**
3. **SCI GFCC**
4. **SCI JFBoard**
5. **SCI FBoard**
6. **PRE SCCASP**
7. SCCASP
8. SQAPC
9. Senate
10. CalEditor
11. Banner

Approval Path

1. 09/15/25 4:21 pm Daniel Stolarski (danielstolarski): Approved for PHYS ChairDir GR
2. 09/17/25 2:47 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI Dean
3. 09/23/25 2:06 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI GFCC
4. 11/11/25 11:08 am Jaime Sadgrove (jaimesadgrove): Approved for SCI JFBoard
5. 11/11/25 11:58 am Jaime Sadgrove (jaimesadgrove): Approved for SCI FBoard

Effective Date	2026-27
Workflow	majormod
New Resources	No New Resources
Level	Graduate
Course Code	PHYS

Course Number	5911
Title	M.Sc. Project
Title (short)	M.Sc. Project
Faculty	Faculty of Science
Academic Unit	Department of Physics
Credit Value	1.0
Special/Selected Topics	Not Applicable
Significant Experiential Learning	Applied Research Project
Course Description	Research project for MSc non-thesis option students only.
Prerequisite(s)	restricted to students in the MSc Physics non-thesis program.
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Satisfactory/Unsatisfactory
Schedule Type	*Capstone *Research Project *May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	Associated with major mod MSC-9. Creating a new capstone course for students in the proposed non-thesis MSc Physics program.
Rationale for new course	MSc has capstone research project that needs a course code.
Course reviewer comments	

Key: 11347

Preview Bridge

Program Change Request

Date Submitted: 11/11/25 10:14 am

Viewing: TBD-1992 : Master of Applied Business Analytics - Technology Innovation Management

Last approved: 03/22/24 10:27 am

Last edit: 01/21/26 1:07 pm

Last modified by: nataliephelan

Changes proposed by: danpremachuk

In Workflow

1. **TIMG ChairDir GR**
2. **BUS GFCC**
3. **BUS FBoard**
4. **PRE SCCASP**
5. **SCCASP**
6. SQAPC
7. Senate
8. CalEditor

Approval Path

1. 11/27/25 9:49 am Dan Premachuk (danpremachuk): Approved for TIMG ChairDir GR
2. 11/27/25 10:11 am Luciara Nardon (luciaranardon): Approved for BUS GFCC
3. 11/27/25 10:13 am Luciara Nardon (luciaranardon): Approved for BUS FBoard
4. 01/15/26 10:41 am Natalie Phelan (nataliephelan): Approved for PRE SCCASP

History

1. Apr 29, 2020 by Steven Muegge (stevenmuegge)
2. Apr 30, 2020 by Sarah Cleary (sarahcleary)

3. Mar 22, 2024 by Sandra Bauer (sandrabauer)

Calendar Pages Using this Program: Technology Innovation Management

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Program Code	TBD-1992
Level	Graduate
Faculty	Sprott School of Business
Academic Unit	Technology Innovation Management Program
Degree	
Title	Master of Applied Business Analytics - Technology Innovation Management

Program Requirements

Program Requirements

Master of Applied Business Analytics - Technology Innovation Management (5.5 credits)

Requirements - research project pathway:

1. 2.5 credits in:		2.5
TIMG 5001 [0.5]	Principles of Technology Innovation Management	
TIMG 5002 [0.5]	Technology Entrepreneurship	
TIMG 5003 [0.5]	Issues in Technology Innovation Management	
TIMG 5301 [0.5]	Applied Analytics for Technology Innovation Management	
TIMG 5303 [0.5]	Machine Learning for Technology Entrepreneurship Problem-Solving	
2. 1.0 credit in approved TIMG electives		1.0
3. 1.0 credit in approved electives in engineering, business, or science		1.0
4. 1.0 credit in:		1.0
TIMG 5907 [1.0]	M.A.B.A. Project	
Total Credits		5.5

Requirements - coursework pathway:

1. 2.5 credits in:		2.5
TIMG 5001 [0.5]	Principles of Technology Innovation Management	
TIMG 5002 [0.5]	Technology Entrepreneurship	
TIMG 5003 [0.5]	Issues in Technology Innovation Management	
TIMG 5301 [0.5]	Applied Analytics for Technology Innovation Management	
TIMG 5303 [0.5]	Machine Learning for Technology Entrepreneurship Problem-Solving	
2. 1.0 credit in approved TIMG electives		1.0
3. 1.0 credit in approved electives in engineering, business, or science		1.0
4. 1.0 credit in approved electives		1.0
Total Credits		5.5

New Resources	No New Resources
Summary	Approve that a student can complete the M.A.B.A pathway either via a 1.0 credit TIMG 5907 project or 1.0 credit in approved electives.
Rationale for change	Context / background Students in the TIM program register in four pathways: • Master of Applied Business Analytics • Master of Digital Transformation and Entrepreneurship • Master of Technology • Master of Entrepreneurship Two of these pathways, the Master of Digital Transformation and Entrepreneurship and the Master of Entrepreneurship can be completed with 1.0 credit project or 1.0 credit in approved electives. The Master of Applied Business Analytics and the Master of Technology can only be completed with a 1.0 credit project.
Transition/Implementation	This aims to standardize the ways TIM students complete their pathways by allowing students in the Master of Applied Business Analytics and the Master of Technology to complete the pathways with a 1.0 credit project or a 1.0 credit in approved electives.
Program reviewer comments	**nataliephelan (12/11/25 10:33 am):** After discussion with APSI, changed to majormod workflow. Also removed "project pathway" from the course list heading as the proposed change is to allow a project or coursework pathway. **nataliephelan (01/21/26 1:07 pm):** The coursework and research project pathways have been separated into their own course lists, per direction from Graduate Studies.

Key: 1992

Program Change Request

Date Submitted: 11/12/25 3:14 pm

Viewing: **MENG-TIM : M.Tech. - Technology Innovation Management**

Last approved: 06/12/24 4:47 pm

Last edit: 01/21/26 2:13 pm

Last modified by: nataliephelan

Changes proposed by: danpremachuk

In Workflow

1. **TIMG ChairDir GR**
2. **BUS GFCC**
3. **BUS FBoard**
4. **PRE SCCASP**
5. **SCCASP**
6. SQAPC
7. Senate
8. CalEditor

Approval Path

1. 11/27/25 9:49 am Dan Premachuk (danpremachuk): Approved for TIMG ChairDir GR
2. 11/27/25 10:11 am Luciara Nardon (luciaranardon): Approved for BUS GFCC
3. 11/27/25 10:13 am Luciara Nardon (luciaranardon): Approved for BUS FBoard
4. 01/15/26 1:35 pm Natalie Phelan (nataliephelan): Approved for PRE SCCASP

History

1. May 8, 2017 by Sandra Bauer (sandrabauer)
2. Apr 11, 2018 by mikelabreque
3. Apr 1, 2020 by Sandra

4. Apr 30, 2020 by Sarah Cleary (sarahcleary)
5. Mar 20, 2024 by Sandra Bauer (sandrabauer)
6. Jun 12, 2024 by Sandra Bauer (sandrabauer)

Calendar Pages Using this Program: Technology Innovation Management

Effective Date	2026-27
Workflow	majormod
Program Code	MENG-TIM
Level	Graduate
Faculty	Sprott School of Business
Academic Unit	Technology Innovation Management Program
Degree	
Title	M.Tech. - Technology Innovation Management

Program Requirements

Master of Technology
Technology Innovation Management (5.5 credits)

Students in the Master of Technology program are required to complete a total of 5.5 credits, of which at least 5.0 must be at the 5000-level or above, as follows:

Requirements - research project pathway:

1. **1.5 credits in** compulsory courses including: 1.5
   - TIMG 5001 [0.5] Principles of Technology Innovation Management
   - TIMG 5002 [0.5] Technology Entrepreneurship
   - TIMG 5003 [0.5] Issues in Technology Innovation Management
2. **2.0 credits in** approved restricted elective courses 2.0
3. **1.0 credit in** approved non-restricted electives 1.0
4. **1.0 credit in** a graduate project 1.0

   or

1.0 credit in approved electives	
Total Credits	5.5

Requirements - coursework pathway

1. 1.5 credits in compulsory courses:	1.5
TIMG 5001 [0.5] Principles of Technology Innovation Management	
TIMG 5002 [0.5] Technology Entrepreneurship	
TIMG 5003 [0.5] Issues in Technology Innovation Management	
2. 2.0 credits in approved restricted electives	2.0
3. 1.0 credit in approved non-restricted electives	1.0
4. 1.0 credit in approved electives	1.0
Total Credits	5.5

Restricted Elective Courses

Students in the M.Tech. program must complete 1.0 credit in the field of technology innovation management and 1.0 credit in engineering, business or science. Courses in the field of technology innovation management begin with the prefix TIMG.

Non-Restricted Elective Courses

Students in the M.Tech. program are required to complete 1.0 credit from courses offered in engineering, business, or science.

New Resources	No New Resources
Summary	Approve that a student can complete the M. Tech pathway either via a 1.0 credit TIMG 5901 project or 1.0 credit in approved electives.
Rationale for change	Context / background Students in the TIM program register in four pathways: • Master of Applied Business Analytics • Master of Digital Transformation and Entrepreneurship • Master of Technology • Master of Entrepreneurship Two of these pathways, the Master of Digital Transformation and Entrepreneurship and the Master of Entrepreneurship can be completed with 1.0 credit project or 1.0 credit in approved electives. The Master of Applied Business Analytics and the Master of Technology can only be completed with a 1.0 credit project.
Transition/Implementation	This aims to standardize the ways TIM students complete their pathways by allowing students in the Master of Applied Business Analytics and the Master of Technology to complete the pathways with a 1.0 credit project or a 1.0 credit in approved electives.
Program reviewer comments	**nataliephelan (12/11/25 10:18 am):** After discussion with APSI, changed to majormod workflow. Also removed "project pathway" from the course list heading as the proposed change is to allow a project or coursework pathway. **nataliephelan (01/21/26 2:13 pm):** The coursework and research project pathways have been separated into their own course lists, per direction from Graduate Studies.

Key: 1015

Course Change Request

New Course Proposal

Date Submitted: 11/14/25 1:07 pm

Viewing: **TIMG 5902 : M.Tech Project**

Last edit: 11/14/25 1:07 pm

Changes proposed by: danpremachuk

In Workflow

1. **TIMG ChairDir GR**
2. **BUS Dean**
3. **BUS GFCC**
4. **BUS FBoard**
5. **PRE SCCASP**
6. **SCCASP**
7. SQAPC
8. Senate
9. CalEditor
10. Banner

Approval Path

1. 11/27/25 9:50 am Dan Premachuk (danpremachuk): Approved for TIMG ChairDir GR
2. 11/27/25 10:12 am Luciara Nardon (luciaranardon): Approved for BUS Dean
3. 11/27/25 10:12 am Luciara Nardon (luciaranardon): Approved for BUS GFCC
4. 11/27/25 10:13 am Luciara Nardon (luciaranardon): Approved for BUS FBoard
5. 01/16/26 2:45 pm Natalie Phelan (nataliephelan): Approved for PRE SCCASP

Effective Date 2026-27

Workflow	majormod
New Resources	No New Resources
Level	Graduate
Course Code	TIMG
Course Number	5902
Title	M.Tech Project
Title (short)	M.Tech Project
Faculty	Sprott School of Business
Academic Unit	Technology Innovation Management Program
Credit Value	1.0
Special/Selected Topics	Not Applicable
Significant Experiential Learning	Applied Research Project
Course Description	Final TIM Master of Technology Project.
Prerequisite(s)	
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Standard Letter Grade
Schedule Type	*Research Project *May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No

Summary	Addition of M.Tech 590X Project course for the Masters of Technology degree
Rationale for new course	Project course for M.Tech is required for students to register and complete the course requirements for their Masters of Technology in Technology Innovation Management degree.
Course reviewer comments	

Key: 11415

Preview Bridge

Course Change Request

New Course Proposal

Date Submitted: 12/01/25 3:53 pm

Viewing: **WGST 3999 : Co-operative Work Term**

Last edit: 12/01/25 3:53 pm

Changes proposed by: katieleblanc

In Workflow

1. **WOMN ChairDir UG**
2. **AS Dean**
3. **AS FCC**
4. **AS FBoard**
5. **PRE SCCASP**
6. **SCCASP**
7. SQAPC
8. Senate
9. CalEditor
10. PRE CalEditor
11. Banner

Approval Path

1. 12/02/25 12:02 pm Megan Rivers-Moore (meganriversmoore): Approved for WOMN ChairDir UG
2. 01/13/26 3:10 pm Pascal Gin (pascalgin): Approved for AS Dean
3. 01/19/26 9:48 am Sarah Mohammed (sarahmohammed): Approved for AS FCC
4. 01/23/26 3:48 pm Sarah Mohammed (sarahmohammed): Approved for AS FBoard
5. 02/02/26 12:37 pm Angel Wagner (angelwagner): Approved for PRE SCCASP

Effective Date	2026-27
Workflow	majormod
New Resources	No New Resources
Level	Undergraduate
Course Code	WGST

Course Number	3999
Title	Co-operative Work Term
Title (short)	Co-operative Work Term
Faculty	Faculty of Arts and Social Sciences
Academic Unit	Pauline Jewett Institute of Women's and Gender Studies
Credit Value	0.0
Special/Selected Topics	Not Applicable
Significant Experiential Learning	Co-op
Course Description	This course covers the deliverables associated with the co-op work term, such as the site visit, work term report submission, and employer evaluation.
Prerequisite(s)	Registration in the Co-operative Education Option.
Class Format	Includes: Experiential Learning Activity
Precluded Courses	
Also listed as	
Piggybacked Courses	
Grade Mode	Satisfactory/Unsatisfactory
Schedule Type	*Work Term *May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	NA
Rationale for new course	Supports the new co-op option for Women's and Gender Studies
Course reviewer comments	

Key: 11352

Preview Bridge

Course Change Request

Date Submitted: 08/27/25 8:06 pm

Viewing: **PSYC 5904 : Community Mental Health and Well-Being ~~Practicum~~**

Last approved: 08/09/23 5:04 am

Last edit: 10/03/25 11:20 am

Changes proposed by: michaelwohl

Calendar Pages referencing this course	Psychology Psychology (PSYC)
Other Courses referencing this course	In The Calendar Prerequisites: PSYC 5905 : Applied Community Mental Health and Well-Being
Programs referencing this course	M.A. Psychology with Concentration in Mental Health and Well-Being

In Workflow

1. **PSYC ChairDir GR**
2. **AS GFCC**
3. **AS FBoard**
4. **PRE SCCASP**
5. SCCASP
6. SQAPC
7. Senate
8. CalEditor
9. Banner

Approval Path

1. 07/10/25 10:46 am Guy Lacroix (guylacroix): Approved for PSYC ChairDir GR
2. 08/27/25 1:42 pm Natalie Phelan (nataliephelan): Rollback to Initiator
3. 08/27/25 10:30 pm Guy Lacroix (guylacroix): Approved for PSYC ChairDir GR
4. 10/02/25 6:26 pm Pascal Gin (pascalgin): Rollback to PSYC ChairDir GR for AS GFCC
5. 10/03/25 10:19 am Michael Wohl (michaelwohl): Approved for PSYC ChairDir GR
6. 10/29/25 1:58 pm Sarah Mohammed (sarahmohammed): Approved for AS GFCC
7. 11/07/25 3:27 pm Sarah Mohammed (sarahmohammed): Approved for AS FBoard

History

1. Apr 29, 2020 by Sandra Bauer (sandrabauer)
2. Aug 9, 2023 by Sandra Bauer (sandrabauer)

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Level	Graduate
Course Code	PSYC
Course Number	5904
Title	Community Mental Health and Well-Being ~~Practicum~~
Title (short)	Com Mntal Hlth Wllbeing ~~Prctcm~~
Faculty	Faculty of Arts and Social Sciences
Academic Unit	Department of Psychology
Credit Value	0.50
Special/Selected Topics	Not Applicable
Significant Experiential Learning	Field Experience ~~Practica or Placements (including Clinical Placements)~~
Course Description	Students will develop, design, and plan a knowledge mobilization activity to promote and support well-being for the campus community. Implementation and evaluation of the plans will occur in PSYC5905. Graded Sat/Uns.
Prerequisite(s)	PSYC 5410 and ~~0.5 credit from~~ PSYC ~~5001, PSYC 5407, PSYC~~ 5411, ~~PSYC 5416, PSYC 5417 and PSYC 5801~~ with a grade of A- or higher and PSYC 5209 or other health-oriented course approved by the graduate supervisor, with a grade of A- or higher; and approval of the graduate supervisor.
Class Format	
Precluded Courses	
Also listed as	
Piggybacked Courses	
U Ottawa Code	
Grade Mode	Satisfactory/Unsatisfactory
Schedule Type	~~*Practicum~~ Field Course

	*May constitute a major modification under Carleton's IQAP. Please consult https://carleton.ca/viceprovost/major-minor-modifications/ for more details.
Unpaid Placement	No
Summary	changed name of the course (dropped the word practicum). The course is no longer a practicum as defined by Carleton. It is more akin to a field course in which the students will be developing and implementing a project from 5905 for improved campus well-being
Rationale for change	The course is no longer a practicum as defined by Carleton. It is more akin to a field course in which the students will be developing and implementing a project from 5905 for improved campus well-being
Course reviewer comments	**nataliephelan (08/27/25 1:42 pm):** Rollback: To edit course title. **pascalgin (10/02/25 6:26 pm):** Rollback: Thanks for providing a succinct course description as to content and expectation. **nataliephelan (10/03/25 11:20 am):** Changed to major mod workflow - removing practicum.

Key: 9773

Preview Bridge

Program Change Request

Date Submitted: 08/13/25 10:14 am

Viewing: N13 : Minor in Interdisciplinary ~~Integrated~~ Science Applications

Last approved: 04/24/25 1:57 pm

Last edit: 03/03/26 11:13 am

Last modified by: angelwagner

Changes proposed by: michellesantoianni

In Workflow

1. **IEIS ChairDir UG**
2. **SCI FCC**
3. **SCI FBoard**
4. **PRE SCCASP**
5. **SCCASP**
6. SQAPC
7. Senate
8. PRE CalEditor
9. CalEditor

Approval Path

1. 08/13/25 3:15 pm Steven Cooke (stevencooke): Approved for IEIS ChairDir UG
2. 09/18/25 2:56 pm Jaime Sadgrove (jaimesadgrove): Approved for SCI FCC
3. 10/03/25 10:38 am Jaime Sadgrove (jaimesadgrove): Approved for SCI FBoard
4. 10/16/25 3:01 pm Angel Wagner (angelwagner): Approved for PRE SCCASP

History

1. Apr 24, 2025 by Michelle Santoianni (michellesantoianni)

Calendar Pages Using this Program	Integrated Science
Effective Date	2026-27
Workflow	majormod
Program Code	N13

Level	Undergraduate
Faculty	Faculty of Science
Academic Unit	Institute for Environmental and Interdisciplinary Sciences
Degree	Bachelor of Science
Title	Minor in Interdisciplinary ~~Integrated~~ Science Applications

Program Requirements

Minor in Interdisciplinary ~~Integrated~~ Science Applications (4.0 ~~(4.0~~ credits)

The Minor in Interdisciplinary ~~Integrated~~ Science Applications is available to degree students registered in programs other than those offered by the Institute for Environmental and Interdisciplinary ~~Interdisciplinary~~ Science.

Students are required to present a Minor CGPA of 4.00 or higher at graduation in order to be awarded a Minor in Interdisciplinary Science Applications. ~~Integrated Science.~~

Requirements:	
1. 1.5 credits in ISAP at the 1000- or 2000-level	1.5
2. 1.5 credits in ISAP courses at the 3000- or 4000-level	1.5
3. 1.0 credit in Science Continuation or Science Faculty Electives	1.0
4. The remaining requirements of the major discipline(s) and degree must be satisfied	
Total Credits	4.0

New Resources	No New Resources
Summary	Changing title of minor
Rationale for change	Changing title of minor to provide greater clarity on the focus of the minor to students
Transition/Implementation	No transition. There are currently no students in the Minor in Integrated Science.

Program reviewer comments	**angelwagner (10/28/25 11:39 am):** Changed to major modification. **angelwagner (01/28/26 4:53 pm):** Minor name updated from "Science Communication and Practice" to "Interdisciplinary Science Applications" as per request from SCAP. **angelwagner (03/03/26 11:13 am):** Editorial.

Key: 2285

Program Change Request

Date Submitted: 02/19/26 10:54 am

Viewing: **TBD-1677 : R-GR-ADMREQT-Information Technology Ph.D.**

Last approved: 05/05/17 3:03 pm

Last edit: 03/05/26 12:23 pm

Last modified by: nataliephelan

Changes proposed by: nataliephelan

In Workflow

1. **BIT ChairDir GR**
2. **ENG Dean**
3. **GradDeanNotify**
4. **ENG GFCC**
5. **BIT FBoard**
6. **SQAPC**
7. PRE SCCASP
8. SCCASP
9. Senate
10. CalEditor

Approval Path

1. 02/19/26 11:11 am Ali Arya (aliarya): Approved for BIT ChairDir GR
2. 02/19/26 12:01 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG Dean
3. 03/03/26 3:20 pm Natalie Phelan (nataliephelan): Approved for GradDeanNotify
4. 03/05/26 4:58 pm Jeffrey Erochko (jeffreyerochko): Approved for ENG GFCC
5. 03/05/26 5:12 pm Ali Arya (aliarya): Approved for BIT FBoard

History

1. May 5, 2017 by Sandra Bauer (sandrabauer)
2. May 5, 2017 by Sandra Bauer (sandrabauer)

Calendar Pages Using this Program: Information Technology

Effective Date	2026-27
Workflow	majormod ~~minormod~~
Program Code	TBD-1677
Level	Graduate
Faculty	Faculty of Engineering and Design
Academic Unit	School of Information Technology
Degree	
Title	R-GR-ADMREQT-Information Technology Ph.D.

Program Requirements

Admission

1. Admission with master's degree: the normal requirement for admission into the Ph.D. ~~AdmissionApplicants to this~~ program is ~~will normally hold~~ a master's ~~Master's~~ degree in one of the three related disciplines: ~~disciplines (Technology, Content, and People) but demonstrate the ability to work in multi-disciplinary groups and have some general technology (digital media) background.~~ Technology, Content, and People. Applicants judged to be generally acceptable but lacking adequate ~~deficient in some~~ preparation in certain areas may be required ~~asked~~ to complete extra coursework ~~course work~~ in addition to the program requirements.
2. Admission with bachelor's degree: exceptional applicants with a bachelor's degree in a related discipline (e.g. Information Technology, Computer Engineering, Computer Science) with an overall average of A- or higher may be considered for direct admission into the Ph.D. program. These applicants must demonstrate strong potential for independent research, evidenced by achievements such as publications in reputable conferences. Candidates admitted through this pathway will be required to take coursework equivalent to the coursework requirement of the master's with thesis program.
3. Fast-track: students enrolled in the thesis-based master's program may be permitted to transfer into the Ph.D. program if they demonstrate: a) outstanding academic performance, demonstrated by completing at least 2.5 credits of coursework at the graduate level with a CGPA of A or higher, and b) significant research potential, evidenced by one or more of the following: peer-reviewed research publications, research presentations at conferences or workshops, and research-based course projects with written deliverables. Students who are fast-tracked will receive up to 1.5 credits as advanced standing from their master's coursework to satisfy the coursework requirement of the Ph.D. program.

In addition to transcripts and letters of reference, application packages will include a statement of interest outlining the applicant's proposed area of research.

New Resources	No New Resources
Summary	Introduction of a direct entry admission pathway, and formal encoding of the unit's fast-tracking procedure.
Rationale for change	There are two main reasons for establishing a direct-entry pathway from the bachelor's degree into the PhD program in the School of Information Technology. First, this pathway will enhance our ability to identify and recruit exceptional undergraduate students who demonstrate outstanding research potential early in their academic careers. Some of our strongest students complete substantial research projects during their bachelor's degree, often through capstone projects, internships, or undergraduate research opportunities. These top students are frequently ready to engage in doctoral-level research without the intermediate step of a Master's degree. Providing a direct-entry option allows us to attract, retain, and support these high-performing students who already have a clear commitment to pursuing advanced research. Second, introducing a direct-entry pathway will significantly strengthen our capacity to recruit international students, particularly from regions where standalone Master's programs are limited or uncommon. In several countries, including the United States and many parts of Europe/Asia, it is standard practice for strong students to progress directly from a bachelor's degree to a PhD program. Maintaining a mandatory MASc requirement puts CSIT at a competitive disadvantage when trying to attract these students, who may otherwise choose institutions where direct entry is the norm. Given the increasingly competitive landscape for graduate student recruitment, both nationally and internationally, adding this pathway supports CSIT's goal of attracting top-tier research talent. Direct entry aligns our program structure with international standards, removes barriers for exceptional applicants, and helps ensure we remain competitive in the global recruitment environment.
Transition/Implementation	Earliest possible admission via direct entry will be fall 2026.

Program reviewer comments	**nataliephelan (03/05/26 12:23 pm):** Following discussion at FED GFCC on March 5 2026, reworded item 2 to make it more clear that direct entry students will complete a total of 2.5 credits of coursework.

Key: 1677