

# Plan Selection and UG Offerings in the School of Computing

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moveForward(100);
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First line of code written by  
first American President  
to write a line of code  
December 2014

**Juergen Dingel**

**April 9, 2020**

# Content

- Plan selection
- Computing offerings
  - plans
  - Data Analytics certificate
- New offerings expected for Fall 2020

# Plan Selection

- **Important:** All students who have successfully completed 24 units or more **MUST** select a plan
  - o/w they will not be able to enroll in 2<sup>nd</sup> year courses during summer
- **When?** ~~May 11 – 22, 2020~~ May 27 – June 2
- **More info?** <https://www.queensu.ca/artsci/undergrad-students/plan-selection>



Home > Undergrad Students > First-Year Students > Plan Selection

## PLAN SELECTION

\*\*Please note, plan thresholds may be changing. Please continue to check this page or the latest information.

All students that have successfully completed 24 units or more must declare a Plan. Browse through the sections below to learn all about how to choose your Plan.

- ⊕ Majors Night
- ⊕ Six Most-Asked Questions at Majors Night
- ⊕ **Program / Plan Selection - May 27 - June 2, 2020**
- ⊕ What it takes to be accepted to a Plan
- ⊕ Electives & Supporting Courses
- ⊕ Information Sessions for Plan Selection
- ⊕ Program Plan Selection FlowChart

Acceptance via

- **Automatic Acceptance**
- **Pending List**

# Plan Selection

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### Minimum requirements for

- Automatic Acceptance
- Pending List

for Computing plans

School of Computing									
	Code	Program	Plan	Automatic Acceptance Minimum Requirements			Pending List Minimum Requirements		
				Cumulative GPA	Course	Minimum Grade	Cumulative GPA	Course	Minimum Grade
Major	COMP-M-BCH	BCMP(Hons)	Computing	2.6	CISC 12#	B	2.3	CISC 12#	B-
Specialization	BMCO-P-BCH	BCMP(Hons)	Biomedical Computing	2.6	CISC 12#	B	2.3	CISC 12#	B-
Specialization	COCA-P-BAH	BA(Hons)	Computing & the Creative Arts	No Automatic Acceptance*			2.3	CISC 12#	B-
Specialization	COGS-P-BCH	BCMP(Hons)	Cognitive Science	2.6	CISC 12#	B	2.3	CISC 12#	B-
Specialization	COMA-P-BCH	BCMP(Hons)	Computing & Math	No Automatic Acceptance*			2.3	CISC 12#	B-
Specialization	CSCI-P-BCH	BCMP(Hons)	Computer Science	2.6	CISC 12#	B	2.3	CISC 12#	B-
Specialization	SODE-P-BCH	BCMP(Hons)	Software Design	2.6	CISC 12#	B	2.3	CISC 12#	B-
General (Computing)	COMP-G-BCP	BCMP	Computing	2.6	CISC 12#	B	2.0	CISC 12#	C
Minor (Computing)	COMP-Z		Computing	2.6	CISC 12#	B	2.0	CISC 12#	C
General (Arts)	CISC-G-BA	BA	Computing & Information Science	2.6	CISC 12#	B	2.0	CISC 12#	C
Minor (Arts)	COMP-Y		Computing & Information Science	2.6	CISC 12#	B	2.0	CISC 12#	C

\* No automatic acceptance; department will manually determine eligibility

\*\* Students requesting COCA will all be placed on a pending list. Students will be advised to contact department with intended Arts concentration. COMP dept will liaise with Arts department to determine eligibility.

# Automatic Acceptance: Minimum Requirements

	Code	Program	Plan	Automatic Acceptance Minimum Requirements		
				Cumulative GPA	Course	Minimum Grade
Major	COMP-M-BCH	BCMP(Hons)	Computing	2.6	CISC 12#	B
Specialization	BMCO-P-BCH	BCMP(Hons)	Biomedical Computing	2.6	CISC 12#	B
Specialization	COCA-P-BAH	BA(Hons)	Computing & the Creative Arts	No Automatic Acceptance*		
Specialization	COGS-P-BCH	BCMP(Hons)	Cognitive Science	2.6	CISC 12#	B
Specialization	COMA-P-BCH	BCMP(Hons)	Computing & Math	No Automatic Acceptance*		
Specialization	CSCI-P-BCH	BCMP(Hons)	Computer Science	2.6	CISC 12#	B
Specialization	SODE-P-BCH	BCMP(Hons)	Software Design	2.6	CISC 12#	B
General (Computing)	COMP-G-BCP	BCMP	Computing	2.6	CISC 12#	B
Minor (Computing)	COMP-Z		Computing	2.6	CISC 12#	B
General (Arts)	CISC-G-BA	BA	Computing & Information Science	2.6	CISC 12#	B
Minor (Arts)	COMP-Y		Computing & Information Science	2.6	CISC 12#	B

[https://www.queensu.ca/artsci/sites/default/files/comp\\_2020.pdf](https://www.queensu.ca/artsci/sites/default/files/comp_2020.pdf)

Note that a 'Pass' in CISC 121 or CISC 124 is not sufficient to satisfy the minimum grade requirement

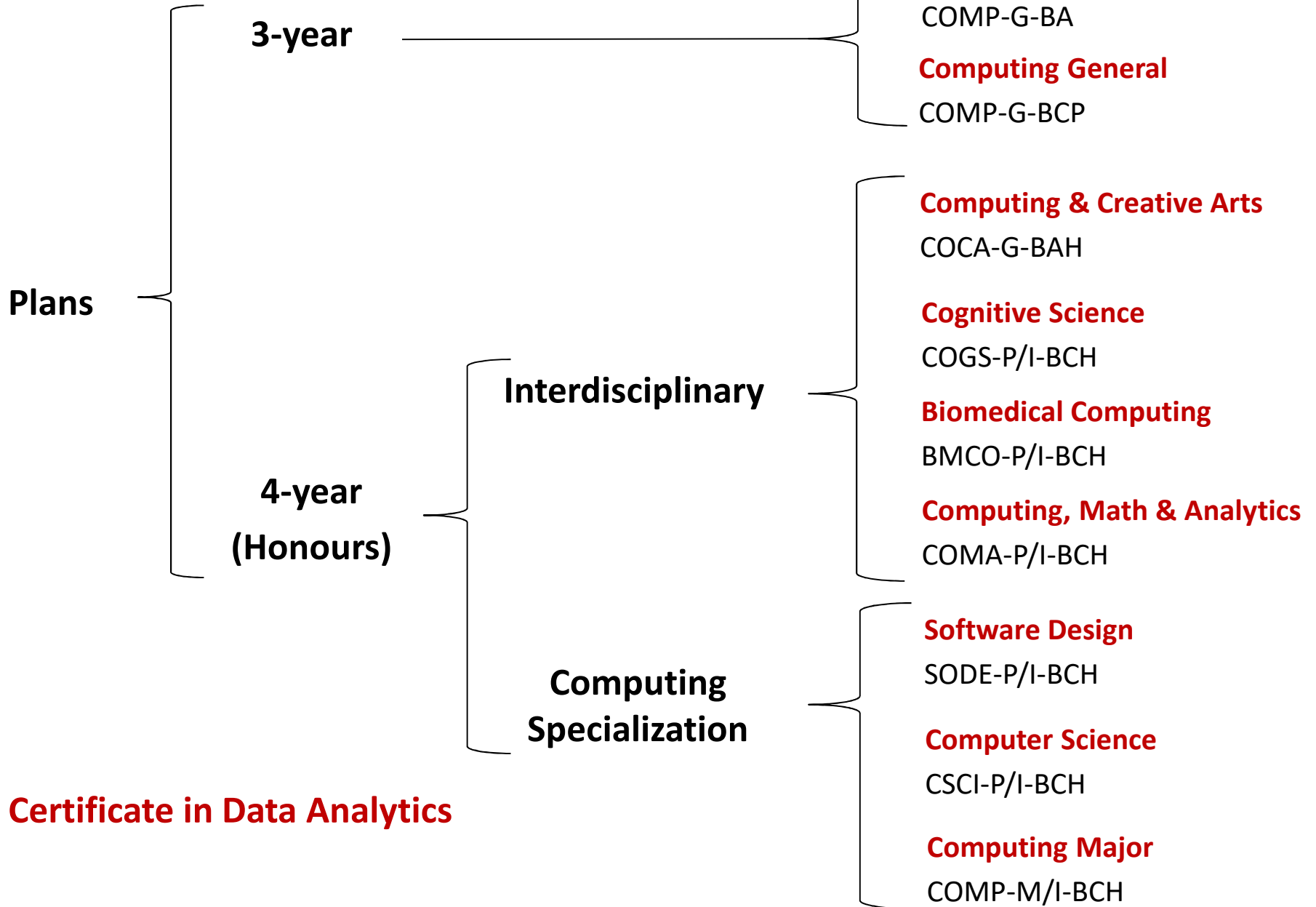
## Pending List: Minimum Requirements

	Code	Program	Plan	Pending List Minimum Requirements		
				Cumulative GPA	Course	Minimum Grade
Major	COMP-M-BCH	BCMP(Hons)	Computing	2.3	CISC 12#	B-
Specialization	BMCO-P-BCH	BCMP(Hons)	Biomedical Computing	2.3	CISC 12#	B-
Specialization	COCA-P-BAH	BA(Hons)	Computing & the Creative Arts	2.3	CISC 12#	B-
Specialization	COGS-P-BCH	BCMP(Hons)	Cognitive Science	2.3	CISC 12#	B-
Specialization	COMA-P-BCH	BCMP(Hons)	Computing & Math	2.3	CISC 12#	B-
Specialization	CSCI-P-BCH	BCMP(Hons)	Computer Science	2.3	CISC 12#	B-
Specialization	SODE-P-BCH	BCMP(Hons)	Software Design	2.3	CISC 12#	B-
General (Computing)	COMP-G-BCP	BCMP	Computing	2.0	CISC 12#	C
Minor (Computing)	COMP-Z		Computing	2.0	CISC 12#	C
General (Arts)	CISC-G-BA	BA	Computing & Information Science	2.0	CISC 12#	C
Minor (Arts)	COMP-Y		Computing & Information Science	2.0	CISC 12#	C

[https://www.queensu.ca/artsci/sites/default/files/comp\\_2020.pdf](https://www.queensu.ca/artsci/sites/default/files/comp_2020.pdf)

- Note that a 'Pass' in CISC 121 or CISC 124 is not sufficient to satisfy the minimum grade requirement
- Every effort will be made to accept as many students over the Pending List as possible.
- However, **acceptance from the Pending List cannot be guaranteed**

# Computing Offerings



# 3-Year General Degrees

- For Minor/Major combinations
- 2 General degrees
  - **Arts:**
    - 33 units CISC, MATH
    - 57 elective units
  - **Computing:**
    - 48 units CISC, MATH, STAT
    - 42 elective units

## **Arts General**

COMP-G-BA

## **Computing General**

COMP-G-BCP

## **Computing & Creative Arts**

COCA-G-BAH

## **Cognitive Science**

COGS-P/I-BCH

## **Biomedical Computing**

BMCO-P/I-BCH

## **Computing, Math & Analytics**

COMA-P/I-BCH

## **Software Design**

SODE-P/I-BCH

## **Computer Science**

CSCI-P/I-BCH

## **Computing Major**

COMP-M/I-BCH



## Summary

- Computing and **one of** Art, Drama, Film or Music
- Bachelor of Arts (Honours)
  - no internship option
- Subject of Specialization (SSP)
  - cannot be combined with a minor
- No automatic acceptance

## Units

- Core (45 units): CISC, MATH
- Sub-plan (39 units): **one of:**
  - **Art, Drama, Film, or Music**
- Electives (36 units)

### Arts General

COMP-G-BA

### Computing General

COMP-G-BCP

### Computing & Creative Arts

COCA-G-BAH

### Cognitive Science

COGS-P/I-BCH

### Biomedical Computing

BMCO-P/I-BCH

### Computing, Math & Analytics

COMA-P/I-BCH

### Software Design

SODE-P/I-BCH

### Computer Science

CSCI-P/I-BCH

### Computing Major

COMP-M/I-BCH

## Summary

- Computing and 2 of LING, PHIL or PSYC
- Bachelor of Computing (Honours)
- Subject of Specialization  
→ cannot be combined with a Minor

## Units

- Core (51 units)
  - CISC, COGS, Math/Stats
- Option (45 units)
  - 30 units from 2 of LING, PHIL or PSYC
  - 15 units from option lists
- Electives (24 units)

### Arts General

COMP-G-BA

### Computing General

COMP-G-BCP

### Computing & Creative Arts

COCA-G-BAH

### Cognitive Science

COGS-P/I-BCH

### Biomedical Computing

BMCO-P/I-BCH

### Computing, Math & Analytics

COMA-P/I-BCH

### Software Design

SODE-P/I-BCH

### Computer Science

CSCI-P/I-BCH

### Computing Major

COMP-M/I-BCH

## Summary

- Computing and BIOL, CHEM & BCHEM
- Bachelor of Computing (Honours)
- Subject of Specialization
  - cannot be combined with a Minor

## Units

- Core (96 units)
  - CISC, MATH, STAT
  - **BIOL, CHEM, BCHM (24 units)**
- Option (9 units)
- Electives (5 units)

### Arts General

COMP-G-BA

### Computing General

COMP-G-BCP

### Computing & Creative Arts

COCA-G-BAH

### Cognitive Science

COGS-P/I-BCH

### **Biomedical Computing**

BMCO-P/I-BCH

### Computing, Math & Analytics

COMA-P/I-BCH

### Software Design

SODE-P/I-BCH

### Computer Science

CSCI-P/I-BCH

### Computing Major

COMP-M/I-BCH

## Summary

- Bachelor of Computing (Honours)
- Subject of Specialization
  - cannot be combined with a Minor
- No automatic acceptance

## Units

- Core (72 units): CISC, MATH, STAT
- Option (12 units)
- Electives (36 units)

## Option courses

- Communications & Coding
- Data Analysis
  - e.g., 271, 371, 372, 451, 473 (all CISC)
- Theory in Computer Science
  - e.g., 422, 462, 465, 466, 467 (all CISC)
- Discrete Math & Optimization

## Arts General

COMP-G-BA

## Computing General

COMP-G-BCP

## Computing & Creative Arts

COCA-G-BAH

## Cognitive Science

COGS-P/I-BCH

## Biomedical Computing

BMCO-P/I-BCH

## Computing, Math & Analytics

COMA-P/I-BCH

## Software Design

SODE-P/I-BCH

## Computer Science

CSCI-P/I-BCH

## Computing Major

COMP-M/I-BCH

## Summary

- Bachelor of Computing (Honours)
- Subject of Specialization
  - cannot be combined with a Minor
- CIPS accredited; for more info on CIPS, see <https://www.cs.queensu.ca/students/undergraduate/faq/accredit.html>

## Units

- Core (63 units): CISC, MATH, STAT
- Option (45 units)
  - 2 options
    - **Software Development**
      - CISC 498 (6 units)
    - **Game Development**
      - CISC 226, 326, 486, 496
  - Writing, Commerce (6 units)
  - Humanities, Social Sciences (3 units)
  - Outside computing etc (18 units)
- Elective (12 units)

### Arts General

COMP-G-BA

### Computing General

COMP-G-BCP

### Computing & Creative Arts

COCA-G-BAH

### Cognitive Science

COGS-P/I-BCH

### Biomedical Computing

BMCO-P/I-BCH

### Computing, Math & Analytics

COMA-P/I-BCH

### Software Design

SODE-P/I-BCH

### Computer Science

CSCI-P/I-BCH

### Computing Major

COMP-M/I-BCH

## Summary

- Bachelor of Computing (Honours)
- Subject of Specialization
  - cannot be combined with a Minor
- CIPS accredited; for more info on CIPS, see <https://www.cs.queensu.ca/students/undergraduate/faq/accredit.html>
- Lots of flexibility

## Units

- Core (54 units): CISC, MATH, STAT
- Option (48 units)
  - one of
    - i) Theory & Applications
    - ii) Biomedical Computation
    - iii) Data Analytics
    - iv) Artificial Intelligence
    - v) Game Design
    - vi) Security (expected for Fall 2020)
  - outside computing (30 units)
- Elective (18 units)

### Arts General

COMP-G-BA

### Computing General

COMP-G-BCP

### Computing & Creative Arts

COCA-G-BAH

### Cognitive Science

COGS-P/I-BCH

### Biomedical Computing

BMCO-P/I-BCH

### Computing, Math & Analytics

COMA-P/I-BCH

### Software Design

SODE-P/I-BCH

### Computer Science

CSCI-P/I-BCH

### Computing Major

COMP-M/I-BCH

## Summary

- Bachelor of Computing (Honours)
- **Extremely flexible**
  1. Not an SSP, **can** be combined with any Minor
  2. Choose from 5 different option lists

## Units

- Core (42.0 units): CISC, STAT
- Supporting (12.0 units): CISC, MATH
- Option (18.0 units):
  - i) Theory & Applications
  - ii) Biomedical Computation
  - iii) Data Analytics
  - iv) Artificial Intelligence
  - v) Game Design
  - vi) Security (expected for Fall 2020)

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COMP-G-BCP

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COCA-G-BAH

### Cognitive Science

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### Biomedical Computing

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### Computer Science

CSCI-P/I-BCH

### Computing Major

COMP-M/I-BCH

# Complete, Official Descriptions of Plans

For the full descriptions of these plans, please see document 'Degree Plans and Course Lists' in the Arts and Science eCalendar at

<https://www.queensu.ca/artsci/undergrad-students/academic-calendar#section-degree-programs-plans-course-lists-and-certificates>

Home > Undergrad Students > Academic Calendar

## 2019-2020 ACADEMIC ECALENDAR

Welcome to the 179th Session of the Queen's Arts and Science Calendar

The purpose of this Calendar is to provide details for programs and courses offered by the Faculty of Arts and Science of Queen's University. It includes matters of general interest to students who are registered in, or who are contemplating, a program in Arts and Science at Queen's. It contains information concerning such things as **Deadlines, Degree Plans and Course Lists, Courses of Instruction, Admission Regulations, Academic Regulations, Appeal Regulations, Faculty Policies** and **Archived Calendars**.

Each Department or other academic unit that offers Plans or other academic programs through the Faculty of Arts and Science is listed in the Calendar.

The **Departmental Information** <sup>Ⓔ</sup> section contains contact information, a brief overview of the unit's academic mission, and departmental policies.

- + Dates and Deadlines
- + Degree Programs, Plans, Course Lists and Certificates
- + Courses of Instruction
- + Courses of Instruction in Other Faculties and Schools

### + Degree Programs, Plans, Course Lists and Certificates

**Academic Degree Programs**

The degrees at present conferred through the Faculty of Arts and Science are outlined in this document. It includes information on electives, including courses from other Faculties.

All **Degree Programs** <sup>Ⓔ</sup> (see below for Plans as opposed to Programs) in the Faculty of Arts and Science require courses to be chosen from one or more Plans. These sections of the Calendar outline the detailed requirements for each Plan, and indicate in which degree program(s) they may be used. The Department or other academic unit responsible for the administration of the Plan is also listed. Students should, in the first instance, contact this Department if they require further information. The Plans are reproduced within the Academic Advisement Tool in SOLUS in much the same format as may be found in this Calendar.

Some Departments allow lists of courses in many different subjects to meet a requirement. Such lists are too long to be written out in full in SOLUS, so appear as a course list in the Calendar. For example, GPHY\_Physical is a course list of all the courses that may be used to fulfill the physical geography requirements of a Geography or Environmental Sciences Plan. The detailed course lists are located following the Degree Plan to which they pertain in the Calendar.

**Degree Plans and Course Lists** <sup>Ⓔ</sup>



# Professional Internship

- 12-16 months
- ~\$40K/year salary
- Need to secure position yourself
  - Queen's Career Services can help
- Eligibility
  - Bachelor of Computing (BCH) plan
  - $\leq 90$  units completed
  - Could go after 2<sup>nd</sup> year

## Arts General

COMP-G-BA

## Computing General

COMP-G-BCP

## Computing & Creative Arts

COCA-G-BAH

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COGS-P/I-BCH

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SODE-P/I-BCH

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CSCI-P/I-BCH

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COMP-M/I-BCH

# Certificate in Data Analytics

- **5 courses**

- **4 required courses**

- Intro to Statistics (STAT 263) or STAT\_OPTIONS
    - Data Analytics (CISC 251)
    - Advanced Data Analytics (CISC 351, **exclusion with CISC 371, CISC 372**)
    - Topics in Data Analytics (CISC 451)

- **plus 1 course from**

- CISC 432, CISC 181, STAT 269, STAT 351, STAT 466, SOCY 284, SOCY 309, PSYC 301, BIOL 343, EMPR 370, ...

- **2 of these courses can also be reused**

- to satisfy Computing plan requirements

- **Open to students**

- **not** in Analytics option of CSCI, COMP or COMA, i.e., not taking CISC 371 or CISC 372

- **More info on**

- <https://www.queensu.ca/artsci/programs-and-degrees/certificates>
  - <https://www.queensu.ca/artsci/node/682/mid/956/credit-certificates>

# Expected for Fall 2020: New Security courses and Security Option List in Major

- New courses
  - CISC 447 Introduction to Cybersecurity
  - CISC 448 Software Reliability and Security
  - CISC 435 Networking -> CISC 335
- New Security Option List in COMP
  - 2. Option A. 18.0 units from one of Option List 2.A.i or 2.A.ii or 2.A.iii or 2.A.iv or 2.A.v. or 2.A.vi
    - i: Fundamental Computation
    - ...
    - v: Game Development
    - vi: Security
      - a. 15.0 units in CISC 220/3.0, CISC 324/3.0, CISC 327/3.0, CISC 335/3.0, CISC 447/3.0
      - b. 3.0 units from CISC 434/3.0, CISC 448/3.0

# Change to Minimum Grade Requirement for Pre-requisite Courses

In response to the new Pass/Drop Winter Term Options announced on 03/25/20 (see <https://www.queensu.ca/artsci/covid-19>), the School's minimum grade requirement on prerequisite courses is changed to:

*“Enrollment in any Computing course requires either*

- *a C- or better, or*
- *a ‘Pass’ obtained in the Winter term 2020*

*in all its pre-requisite courses”*

# Sources of Information

**Arts & Science Faculty: Plan Selection**

<https://www.queensu.ca/artsci/undergrad-students/plan-selection>

**Arts & Science Faculty: Academic Advising**

<https://www.queensu.ca/artsci/undergrad-students/pass-academic-advising>

**Undergraduate Program Assistant, Karen Knight**

**Undergraduate Chair, Juergen Dingel**