Plan Selection and UG Offerings in the School of Computing

moveForward(100);

First line of code written by first American President to write a line of code
December 2014

Juergen Dingel
1st Year Orientation Session, March 25, 2021
[updated April 12, 2021]
Content

- Plan selection
- Computing offerings
  - plans
  - Data Analytics certificate
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 2nd year courses during summer

- **When?** **May 17 to May 28, 2021**

- **More info?** [https://www.queensu.ca/artsci/undergrad-students/plan-selection](https://www.queensu.ca/artsci/undergrad-students/plan-selection)

Acceptance via
1. Automatic Acceptance, or
2. Pending List
Plan Selection

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- **When?** May 17 to May 28, 2021
- **More info?** [https://www.queensu.ca/artsci/undergrad-students/plan-selection](https://www.queensu.ca/artsci/undergrad-students/plan-selection)

Minimum requirements for
1. Automatic Acceptance, and
2. Pending List
for all Computing plans
## Automatic Acceptance: Minimum Requirements

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Code</th>
<th>Program</th>
<th>Cumulative GPA</th>
<th>Course 1</th>
<th>Minimum Grade</th>
<th>Course 2</th>
<th>Minimum Grade</th>
</tr>
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<tbody>
<tr>
<td>Major</td>
<td>COMP-M-BCH</td>
<td>BCMP(Hons)</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>BMCO-P-BCH</td>
<td>BCMP(Hons)</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>COCA-P-BAH</td>
<td>BA(Hons)</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
<td>DRAM 100 or (BISC 100 and BISC 101)</td>
<td>B-</td>
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<td>COCA-P-BAH</td>
<td>BA(Hons)</td>
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<td>B</td>
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<tr>
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<td>BA(Hons)</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
<td>6.0 units from MUSC 104; MUSC 105; MUSC 114; MUSC 171; MUSC 191; MUTH 110; MUTH 111</td>
<td>B-</td>
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<tr>
<td>Specialization</td>
<td>COGS-P-BCH</td>
<td>BCMP(Hons)</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>COMA-P-BCH</td>
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<td>CISC 12#</td>
<td>B</td>
<td>MATH 120 or 121</td>
<td>C</td>
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<tr>
<td>Specialization</td>
<td>CSCI-P-BCH</td>
<td>BCMP(Hons)</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>SODE-P-BCH</td>
<td>BCMP(Hons)</td>
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<td>CISC 12#</td>
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<td>N/A</td>
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<td>General (Computing)</td>
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<td>N/A</td>
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<td>General (Arts)</td>
<td>CISC-G-BA</td>
<td>BA</td>
<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
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<tr>
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<td>2.6</td>
<td>CISC 12#</td>
<td>B</td>
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</tr>
</tbody>
</table>

### Notes
* = Departments will determine automatic acceptance manually
CISC 12# = CISC 121 or CISC 124
# Pending List: Minimum Requirements

<table>
<thead>
<tr>
<th>Plan Type</th>
<th>Code</th>
<th>Cumulative GPA</th>
<th>Course</th>
<th>Minimum Grade</th>
<th>Course 2</th>
<th>Minimum Grade</th>
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</thead>
<tbody>
<tr>
<td>Major</td>
<td>COMP-M-BCH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>BMCO-P-BCH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>COCA-P-BAH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>COCA-P-BAH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>DRAM 100 or (BISC 100 and BISC 101)</td>
<td>C</td>
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<tr>
<td>Specialization</td>
<td>COCA-P-BAH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>FILM 110 or (FILM 104 and BISC 100)</td>
<td>C</td>
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<tr>
<td>Specialization</td>
<td>COCA-P-BAH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>6.0 units from MUSC 104; MUSC 105; MUSC 114; MUSC 171; MUSC 191; MUTH 110; MUTH 111</td>
<td>C</td>
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<tr>
<td>Specialization</td>
<td>COGS-P-BCH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>COMA-P-BCH</td>
<td>2.3</td>
<td>CISC 12#</td>
<td>B-</td>
<td>MATH 120 or 121</td>
<td>C-</td>
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<tr>
<td>Specialization</td>
<td>CSCI-P-BAH</td>
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<td>CISC 12#</td>
<td>B-</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Specialization</td>
<td>SODE-P-BAH</td>
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<td>CISC 12#</td>
<td>B-</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>General (Computing)</td>
<td>COMP-G-BCP</td>
<td>2.0</td>
<td>CISC 12#</td>
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<td>N/A</td>
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<tr>
<td>Minor (Computing)</td>
<td>COMP-Z</td>
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<tr>
<td>General (Arts)</td>
<td>CISC-G-BA</td>
<td>2.0</td>
<td>CISC 12#</td>
<td>C</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Minor (Arts)</td>
<td>COMP-Y</td>
<td>2.0</td>
<td>CISC 12#</td>
<td>C</td>
<td>N/A</td>
<td>N/A</td>
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</tbody>
</table>

**Notes**

Getting on the pending list does not mean acceptance

CISC 12# = CISC 121 or CISC 124
Computing Offerings

3-year
- Arts General
  COMP-G-BA
- Computing General
  COMP-G-BCP

4-year (Honours)
- 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

Certificate in Data Analytics
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
- COAR: 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

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
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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](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)
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
  • outside computing (30 units)
• Elective (18 units)
Summary

- Bachelor of Computing (Honours)
- Extremely flexible
  1. Not an SSP, can be combined with any Minor
  2. Choose from 6 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

Arts General
COMP-G-BA
Computing General
COMP-G-BCP
Computing & Creative Arts
COCA-G-BAH
Cognitive Science
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SODE-P/I-BCH
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

e.g., for COMP:

<table>
<thead>
<tr>
<th>1. Core</th>
<th>(42.0 units)</th>
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<tbody>
<tr>
<td>A. 6.0 units</td>
<td>CISC 121/3.0</td>
<td>CISC 124/3.0</td>
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<tr>
<td>B. 3.0 units</td>
<td>from STAT 263/3.0 or STAT_Options</td>
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<tr>
<td>C. 15.0 units</td>
<td>CISC 203/3.0</td>
<td>CISC 204/3.0, CISC 221/3.0, CISC 223/3.0, CISC 235/3.0</td>
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<tr>
<td>D. 3.0 units</td>
<td>CISC 322/3.0</td>
<td>CISC 325/3.0</td>
</tr>
<tr>
<td>E. 9.0 units</td>
<td>CISC 324/3.0</td>
<td>(CISC 360/3.0 or CISC 260/3.0) and CISC 365/3.0</td>
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<tr>
<td>F. 3.0 units</td>
<td>CISC 497/3.0</td>
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<tr>
<td>G. 3.0 units</td>
<td>CISC 496/3.0</td>
<td>CISC 499/3.0 or CISC 500/3.0</td>
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<table>
<thead>
<tr>
<th>2. Option</th>
<th>(18.0 units)</th>
<th>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</th>
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</thead>
<tbody>
<tr>
<td>A. 18.0 units</td>
<td>from</td>
<td>CISC 422/3.0; CISC 462/3.0; CISC 465/3.0; CISC 468/3.0; CISC 467/3.0</td>
</tr>
</tbody>
</table>

i. Fundamental Computation

a. 3.0 units from CISC 422/3.0; CISC 462/3.0; CISC 465/3.0; CISC 468/3.0; CISC 467/3.0
b. 6.0 units from CISC; CISC_Sub; SOOT at the 400 level or above
c. 6.0 units from CISC; CISC_Sub; SOOT at the 300 level or above
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
  • GPA ≥ 1.90
  • ≤ 108 units completed towards plan
  • Could go after 2\textsuperscript{nd} year

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
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/programs-and-degrees/certificates)
  - [https://www.queensu.ca/artsci/node/682/mid/956/credit-certificates](https://www.queensu.ca/artsci/node/682/mid/956/credit-certificates)
Expected for Fall 2021:

- New courses
  - CISC 4455 Evolutionary Computing
  - CISC 468 Cryptography
# Sources of Information

<table>
<thead>
<tr>
<th>Source</th>
<th>Contact Information</th>
</tr>
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<tbody>
<tr>
<td>Arts &amp; Science Faculty: Plan Selection&lt;br&gt;<a href="https://www.queensu.ca/artsci/undergrad-students/plan-selection">https://www.queensu.ca/artsci/undergrad-students/plan-selection</a></td>
<td>Undergraduate Program Assistant, Karen Knight&lt;br&gt;Undergraduate Chair, David Lamb&lt;br&gt;Assistant Undergraduate Chair, Juergen Dingel</td>
</tr>
</tbody>
</table>