Computing and Mathematics – Specialization (Computing) – Bachelor of Computing (Honours)

COMA-P-BCH or COMA-I-BCH (with internship)

Subject: Administered by the School of Computing and the Department of Mathematics and Statistics.

Plan: Consists of 84.0 units as described below.

Program: The Plan, with sufficient electives to total 120.0 units, will lead to a Bachelor of Computing (Honours) Degree.

1. Core (72.0 units)

(Computing)

A. 6.0 units in CISC 121/3.0 and CISC 124/3.0

B. 18.0 units in CISC 203/3.0, CISC 204/3.0, CISC 221/3.0, CISC 223/3.0, CISC 235/3.0, CISC 260/3.0

C. 3.0 units from CISC 322/3.0 or CISC 326/3.0

D. 6.0 units in CISC 324/3.0 and CISC 365/3.0

E. 3.0 units in CISC 497/3.0

F. 3.0 units from CISC 499/3.0 or CISC 500/6.0

(Mathematics and Statistics)

G. 6.0 units from MATH 110/6.0 or **(MATH 111/6.0 and CISC-102/3.0)**

H. 6.0 units from MATH 120/6.0; MATH 121/6.0; (MATH 123/3.0 and MATH 124/3.0); *MATH 122/6.0*

I. 6.0 units from MATH 210/3.0; MATH 211/6.0; MATH 310/3.0; MATH 311/3.0; MATH 413/3.0; MATH 414/3.0

J. 3.0 units from MATH 225; MATH 231/3.0; *MATH 232/3.0*

K. 3.0 units from MATH 272/3.0 or CISC 271/3.0

L. 3.0 units from MATH 221/3.0 or MATH 280/3.0

M. 3.0 units from STAT 263/3.0 or STAT 269/3.0

N. 3.0 units from STAT 268/3.0 or STAT 351/3.0

2. Option (12.0 units)

A. 12.0 units from COMA_Options

3. Supporting (0.0 units)

4. Additional Requirements

(none)

5. Substitutions

A. Students in the internship version of this Plan will substitute 3.0 units from COMP at the 300 level for requirement 1-F (CISC 499/3.0 or CISC 500/6.0). In addition, the B.Cmp.(Hons.) Program requirements will be increased by 6.0 units from COMP at the 300 level, for a total of 126.0 units, if the student is taking a 12-month internship or by 9.0 units from COMP at the 300 level, for a total of 129.0 units, if the student is taking a 16-month internship.

6. Notes

A. Those students with no programming experience should review first year course choices based on the Section on *Introductory Courses* at the start of the chapter on Computing

B. Students should select some of their option courses to be focused in a particular area; the following is a list of suggested areas and some of the courses that belong to those areas:

- **i.** *Communications and Coding:* MATH 401/3.0; MATH 406/3.0; MATH 418/3.0; MATH 474/3.0; MATH 477/3.0
- **ii.** *Data Analysis*
  CISC 333/3.0; STAT 361/3.0; STAT 462/3.0; STAT 463/3.0; STAT 464/3.0; STAT 471/3.0; STAT 486/3.0
- **iii.** *Theory in Computer Science:* MATH 401/3.0; MATH 402/3.0; MATH 418/3.0; MATH 481/3.0; CISC 422/3.0; CISC 462/3.0; CISC 465/3.0
- **iv.** *Discrete Math and Optimization:* MATH 337/3.0, MATH 401/3.0, MATH 402/3.0, CISC 466/3.0
- **v.** *Biomathematics and Biomedical Computing:* BIOM 300/3.0; CISC-333/3.0; MATH 339/3.0; CISC 330/3.0; CISC 457/3.0; CISC 472/3.0

C. Students interested in pursuing graduate studies in mathematics should take additional mathematics courses.

D. Some CISC, MATH, STAT and BIOM option courses are offered only in alternate years. The courses to be offered each year are announced on the departmental web sites before the course registration period, and students should refer to that information in planning their course selections.

The following lists contain courses offered through other Departments. In accordance with Academic Regulation 2.5 (Access to Classes), students do not have enrolment priority in all of these courses. Access to these courses may only be made available during the Open Enrolment period, and then only if space permits.

COMA_Options

BIOM 300/3.0; CISC 330/3.0; CISC 333/3.0; CISC 457/3.0; CISC 422/3.0; CISC 462/3.0; CISC 465/3.0; CISC 466/3.0; CISC 472/3.0; CISC 500/6.0; MATH 337/3.0; MATH 339/3.0; MATH 401/3.0, MATH 402/3.0, MATH 406/3.0; MATH 413/3.0; MATH 414/3.0; MATH 418/3.0; MATH 474/3.0; MATH 477/3.0; MATH 481/3.0; STAT 361/3.0; STAT 462/3.0; STAT 463/3.0; STAT 464/3.0; STAT 471/3.0; STAT 486/3.0

CISC_Subs

Courses in other departments usable as CISC options
COMM 365/3.0; ELEC 470/3.0; ELEC 471/3.0; ELEC 474/3.0; ELEC 476/3.0; ELEC 478/3.0; MATH 272/3.0; MATH 337/3.0; MATH 401/3.0; MATH 402/3.0; MATH 434/3.0; MATH 474/3.0