

# B.Sc. or B.A. Specialization Mathematical and Computational Finance

## Academic Year 2017-2018 Regular Program (Non Co-op)

Required courses: 90 credits

| TERM 1 (F)            | TERM 2 (W)                                | TERM 3 (F)            | TERM 4 (W)            | TERM 5 (F)                | TERM 6 (W)                |
|-----------------------|---|-----------------------|-----------------------|---------------------------|---------------------------|
| ACCO 230 <sup>3</sup> | MATH 252 <sup>3</sup>                     | MATH 364 <sup>3</sup> | MACF 401 <sup>3</sup> | MACF 402 <sup>3</sup>     | STAT 460 <sup>3</sup>     |
| MATH 251 <sup>3</sup> | MATH 265 <sup>3</sup>                     | MATH 370 <sup>3</sup> | MATH 365 <sup>3</sup> | STAT 360 <sup>3</sup>     | MATH 473 <sup>3</sup>     |
| MATH 264 <sup>3</sup> | STAT 250 <sup>3</sup>                     | STAT 349 <sup>3</sup> | STAT 461 <sup>3</sup> | FINA 412 <sup>3</sup>     | prog. course <sup>3</sup> |
| STAT 249 <sup>3</sup> | COMP 218 <sup>3</sup> /248 <sup>3.5</sup> | COMM 220 <sup>3</sup> | FINA 385 <sup>3</sup> | prog. course <sup>3</sup> | prog. course <sup>3</sup> |
| ECON 201 <sup>3</sup> | ECON 203 <sup>3</sup>                     | COMM 308 <sup>3</sup> | FINA 395 <sup>3</sup> | prog. course <sup>3</sup> | prog. course <sup>3</sup> |

### 2017-2018 Advising Notes:

- Students with exemptions that allow them to take certain courses (e.g. FINA 385/395) earlier in their program, or who may decide to take available courses in SUMMER semesters, are advised to adjust the above schedule to move MATH 473 to TERM 4 (W).
- In the Winter 2018 term one special topics course (MACF 491-H: *Statistical Learning*) is scheduled. Senior students should consider including this courses in their programs if possible, depending on their post-graduation plans and goals, in consultation with their academic advisor.

### Program Requirements (from the University Calendar)

|    |   |
|----|---|
| 6  | MACF 401 <sup>3</sup> , 402 <sup>3</sup>  |
| 24 | MATH 251 <sup>3</sup> , 252 <sup>3</sup> , 264 <sup>3</sup> , 265 <sup>3</sup> , 364 <sup>3</sup> , 365 <sup>3</sup> , 370 <sup>3</sup> , 473 <sup>3</sup>  |
| 18 | STAT 249 <sup>3</sup> , 250 <sup>3</sup> , 349 <sup>3</sup> , 360 <sup>3</sup> , 460 <sup>3</sup> , 461 <sup>3</sup>  |
| 12 | Chosen from MACF 491 <sup>3</sup> , 492 <sup>3</sup> ; MATH 361 <sup>3†</sup> , 464 <sup>3</sup> , 467 <sup>3</sup> , 478 <sup>3</sup> , 479 <sup>3</sup> ; STAT 449 <sup>3</sup> , 450 <sup>3</sup> , 452 <sup>3</sup> |
| 24 | ACCO 230 <sup>3</sup> ; COMM 220 <sup>3</sup> , 308 <sup>3</sup> ; ECON 201 <sup>3</sup> , 203 <sup>3</sup> ; FINA 385 <sup>3</sup> , 395 <sup>3</sup> , 412 <sup>3</sup>   |
| 3  | Chosen from FINA 411 <sup>3</sup> , 413 <sup>3</sup> , 455 <sup>3*</sup> , 465 <sup>3</sup>   |
| 3  | Chosen from COMP 218 <sup>3</sup> or COMP 248 <sup>3.5</sup>  |

†NOTE: Students electing to include MATH 361 in their program are normally expected to plan to take MATH 478 and FINA 411 in order to focus on Portfolio Management and Optimization as an area of the Mathematical and Computational Finance discipline.

\*NOTE: FINA 455 may only be included with prior departmental approval. The topic must be related to an area of the Mathematical and Computational Finance discipline.

# B.Sc. or B.A. Specialization Mathematical and Computational Finance

Academic Year 2017–2018

## Co-op Option

Required courses: 90 credits

| TERM 1 (F)            | TERM 2 (W)                                | TERM 3 (S)                | TERM 4 (F)            | TERM 5 (S)            | TERM 6 (W)                | TERM 7 (F)                |
|-----------------------|---|---------------------------|-----------------------|-----------------------|---------------------------|---------------------------|
| ACCO 230 <sup>3</sup> | MATH 252 <sup>3</sup>                     | COMM 220 <sup>3</sup>     | MATH 364 <sup>3</sup> | MATH 365 <sup>3</sup> | MACF 401 <sup>3</sup>     | MACF 402 <sup>3</sup>     |
| MATH 251 <sup>3</sup> | MATH 265 <sup>3</sup>                     | COMM 308 <sup>3</sup>     | MATH 370 <sup>3</sup> | STAT 461 <sup>3</sup> | MATH 473 <sup>3</sup>     | prog. course <sup>3</sup> |
| MATH 264 <sup>3</sup> | STAT 250 <sup>3</sup>                     | FINA 385 <sup>3</sup>     | STAT 349 <sup>3</sup> | STAT 360 <sup>3</sup> | STAT 460 <sup>3</sup>     | prog. course <sup>3</sup> |
| STAT 249 <sup>3</sup> | COMP 218 <sup>3</sup> /248 <sup>3.5</sup> | prog. course <sup>3</sup> | FINA 395 <sup>3</sup> | FINA 412 <sup>3</sup> | prog. course <sup>3</sup> | prog. course <sup>3</sup> |
| ECON 201 <sup>3</sup> | ECON 203 <sup>3</sup>                     |                           |                       |                       |                           |                           |

### 2017-18 Advising Notes:

- The above is simply one feasible schedule. Domain specific courses should be taken in advance of work-terms if possible.

### Program Requirements

- 6 MACF 401<sup>3</sup>, 402<sup>3</sup>
- 24 MATH 251<sup>3</sup>, 252<sup>3</sup>, 264<sup>3</sup>, 265<sup>3</sup>, 364<sup>3</sup>, 365<sup>3</sup>, 370<sup>3</sup>, 473<sup>3</sup>
- 18 STAT 249<sup>3</sup>, 250<sup>3</sup>, 349<sup>3</sup>, 360<sup>3</sup>, 460<sup>3</sup>, 461<sup>3</sup>
- 12 Chosen from MACF 491<sup>3</sup>, 492<sup>3</sup>; MATH 361<sup>3†</sup>, 464<sup>3</sup>, 467<sup>3</sup>, 478<sup>3</sup>, 479<sup>3</sup>; STAT 449<sup>3</sup>, 450<sup>3</sup>, 452<sup>3</sup>
- 24 ACCO 230<sup>3</sup>; COMM 220<sup>3</sup>, 308<sup>3</sup>; ECON 201<sup>3</sup>, 203<sup>3</sup>; FINA 385<sup>3</sup>, 395<sup>3</sup>, 412<sup>3</sup>
- 3 Chosen from FINA 411<sup>3</sup>, 413<sup>3</sup>, 455<sup>3\*</sup>, 465<sup>3</sup>
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†NOTE: Students electing to include MATH 361 in their program are normally expected to plan to take MATH 478 and FINA 411 in order to focus on Portfolio Management and Optimization as an area of the Mathematical and Computational Finance discipline.

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### Co-op Schedule

|               | Fall        | Winter      | Summer      |
|---------------|-------------|-------------|-------------|
| <b>Year 1</b> | Term 1      | Term 2*     | Term 3      |
| <b>Year 2</b> | Term 4      | Work Term 1 | Term 5      |
| <b>Year 3</b> | Work Term 2 | Term 6      | Work Term 3 |
| <b>Year 4</b> | Term 7      |             |             |

\*Note: Students admitted to the BA/BSc in Mathematical and Computational Finance apply to enter co-op after completion of Term 1. The above activity flow chart is for students admitted into the BA/BSc in Mathematical and Computational Finance in the fall term.