

YEAR 1	Specialization (YEARS 2-4)			
1a. Principal	6a. SP	11a. SP	16a. SP	
<b>1b.</b> Principal	6b. SP	11b. SP	16b. SP	
2a. elective	7a. SP	12a. SP	17a. SP	
2b. elective	7b. SP	12b. SP	17b. SP	
3a. elective	8a. SP	13a. SP	18a. SP	
3b. elective	8b. SP	13b. SP	18b. SP	
4a. elective	9a. elective	14a. elective	19a. elective	
4b. elective	9b. elective	14b. elective	19b. elective	
5a. Cat A or B	10a. elective	15a. elective	20a. elective	
5b. Cat A or B	10b. elective	15b. elective	20b. elective	

# **Module and Graduation Planning**

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First Year	5.0 courses numbered 1000-1999, including 1.0 from Category A or B	
	No principle courses less than 60%	
Module Courses	9.0 courses (or more depending on module) specified by Department.	
	60% cumulative average in specialization module.	
Essay	2.0 E, F, G courses including 1.0 from 2000 level or above (essay courses must be done at Western)	
Breadth	1.0 Category A (Social Science, Interdisciplinary and Multidisciplinary, Various)	
	1.0 Category B (Arts & Humanities and Languages)	
	1.0 Category C (Science)	
Courses	No more than 7.0 Year 1 courses, 13.0 minimum senior level	
BSc degree	4 year: 11.0 Science/BMSc courses (14.0 maximum in one subject area) 3 year: 8.0 Science/BMSc courses (9.0 maximum in one subject area)	
Averages	60% cumulative average in any additional Module taken	
	60% cumulative average on 20.0 courses successfully completed	

**Common Course Policy:** Occurs if you are in completing two modules with common courses. You are allowed to double count 1.0 credits toward both modules. Any remaining common courses are completed by distributing between the two modules as evenly as possible.

<sup>\*</sup>Subject Areas: Actuarial Science; Astronomy; Biology; Chemistry; Computer Science; Earth Sciences; Environmental Sciences; Physics; Statistical Sciences - are all separate subject areas. Courses in Applied Mathematics, Calculus and Mathematics belong to the same subject area – the subject area of mathematics.

# **Specialization In Applied Mathematics**

9.0 Module Courses

### **Year 1:** 5.0 Courses (1.0 Principal Courses)

- **0.5 course** from: Calculus 1000A/B, 1500A/B
- 0.5 course from: Calculus 1501A/B or Calculus 1301A/B
- 4.0 elective courses (Must do 1.0 of Category A or B requirement)

#### Points to Consider:

- Calculus, with no mark less than a 60%, is the 1.0 principal course.
- Applied Math 1413 may be substituted for 1.0 Calculus course requirement.
- Math 1600A/B or Applied Math 1411A/B with a minimum mark of 60% is normally taken in year 1. If not taken in year 1, it must be taken in first term in year 2.

### Year 2: 5.0 Courses

- 0.5 course from: Calculus 2302A/B or 2502A/B
- 0.5 course from: Calculus 2303A/B or 2503A/B
- 0.5 course: Applied Math 2402A
- 1.0 course: Applied Math 2811B, 2814F/G (or former 2813B)
- **0.5 course** from 6.5 courses from: Applied Math 3151A/B, 3615A/B, 3811A/B, 3813A/B, 3815A/B, 3911F/G, or any Applied Math 4000-level course, Computer Science 2210A/B, 2211A/B, 2212A/B/Y, FM 3613B, 3817A/B, Math 2124A/B, 2251F/G, Physics 3200A/B, 3300A/B, 3400A/B, Stats 2857A/B, Stats 2858A/B, 3657A/B. (For these 6.5 courses, some have prerequisites that are not present in the module, and some may be offered only alternate years).
- 2.0 elective courses

#### Year 3: 5.0 Courses

- 3.0 courses (not already taken) from 6.5 courses from: Applied Math 3151A/B, 3615A/B, 3811A/B, 3813A/B, 3815A/B, 3911F/G, or any Applied Math 4000-level course, Computer Science 2210A/B, 2211A/B, 2212A/B/Y, FM 3613B, 3817A/B, Math 2124A/B, 2251F/G, Physics 3200A/B, 3300A/B, 3400A/B, Stats 2857A/B, Stats 2858A/B, 3657A/B. (For these 6.5 courses, some have prerequisites that are not present in the module, and some may be offered only alternate years).
- 2.0 elective courses

#### Year 4: 5.0 Courses

- 3.0 courses (not already taken) from 6.5 courses from: Applied Math 3151A/B, 3615A/B, 3811A/B, 3813A/B, 3815A/B, 3911F/G, or any Applied Math 4000-level course, Computer Science 2210A/B, 2211A/B, 2212A/B/Y, FM 3613B, 3817A/B, Math 2124A/B, 2251F/G, Physics 3200A/B, 3300A/B, 3400A/B, Stats 2857A/B, Stats 2858A/B, 3657A/B. (For these 6.5 courses, some have prerequisites that are not present in the module, and some may be offered only alternate years).
- 2.0 elective courses



#### **Notes:**

(You may have taken a former course that isn't listed, because it isn't offered anymore, but still meets the requirements of the degree – refer to the online academic calendar for the complete list of substitutions. The courses listed are based on the current course offerings.)