

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. Principal	7a. SP	12a. SP	17a. SP	
<b>2b.</b> Principal	7b. SP	12b. SP	17b. SP	
3a. Principal	8a. SP	13a. SP	18a. elective	
<b>3b.</b> Principal	8b. SP	13b. SP	18b. elective	
4a. Principal	9a. SP	14a. SP	19a. elective	
4b. elective	9b. SP	14b. SP	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**

First Year	5.0 courses numbered 1000-1999, including 1.0 from Category A or B	
	No principal 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)*	
Averages	60% cumulative average in any additional Module taken	
	60% cumulative average on 20.0 courses successfully completed	

<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 Physics**

10.0 Module Courses

### Year 1: 5.0 Courses (3.5 Principal Courses)

- 1.0 course from: Physics 1301A/B, 1401A/B, 1501A/B or 70% in Physics 1028A/B and Physics 1302A/B, 1402A/B, 1502A/B or 80% in Physics 1029A/B
- **1.0 course**: One of Calculus 1000A/B, 1500A/B and Calculus 1501A/B (recommended) or Calculus 1301A/B (with a mark of at least 85%); or Applied Math 1413
- 0.5 course: Mathematics 1600A/B
- 0.5 additional course from the Faculty of Science. It is highly recommended that students complete one of the following: Chemistry 1301A/B, Computer Science 1025A/B or 1026A/B, or Statistical Science 1024A/B
- 0.5 additional course
- 1.5 elective courses

#### Year 2: 5.0 Courses

- **1.0 course**:: Calculus 2502A/B (preferred) or Calculus 2302A/B, and Calculus 2503A/B (preferred) or Calculus 2303A/B
- 0.5 course: Applied Math 2402A
- 1.0 course: Physics 2101A/B, 2102A/B
- 1.0 course: Physics 2110A/B, 2910F/G
- 0.5 course from: Any courses not yet taken (or listed to be taken) numbered 2100 or higher in Physics and Astronomy
- 1.0 elective courses

#### Year 3: 5.0 Courses

- 0.5 course: Applied Math 3815A/B
- 3.0 courses: Physics 3151A/B, 3200A/B, 3300A/B, 3400A/B, 3900F/G/Z, 3926F/G
- 0.5 course from: Any courses not yet taken (or listed to be taken) numbered 2100 or higher in Physics and Astronomy
- 1.0 elective courses

#### Year 4: 5.0 Courses

- 1.0 course: Physics 4251A/B, 4351A/B
- **0.5 course** from: Any courses not yet taken (or listed to be taken) numbered 2100 or higher in Physics and Astronomy
- **0.5 course** from: Any Physics or Astronomy course not already taken at the 4000-level or above
- 3.0 elective courses

\*Students must also complete Physics 2950Y, 3950Y, 4950Y (non-credit seminar courses)

#### Points to Consider:

See back page for important information.



#### **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.
- Students should plan this module taking into account prerequisites of senior courses.
- The order of courses listed here is a recommendation only. It is possible to complete this module in a different order than what is listed here

### **Common Course Policy:**

To be considered if you are completing two modules with common courses. You are allowed to double count 1.0 credits toward both modules. Any remaining common courses are distributed between the two modules as evenly as possible and substituted with alternate courses. Please note, when choice exists in a module, courses are not considered common unless and until all choice is exhausted. For more information, see the Academic Counselling website or speak with an Academic Counsellor.