### 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, Z 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**

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**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.

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*REFER TO THE OFFICIAL ACADEMIC CALENDAR ONLINE - WWW.WESTERNCALENDAR.UWO.CA*
## Specialization In Chemistry

### 10.0 Module Courses

### Year 1: 5.0 Courses (3.0 Principal Courses)
- **1.0 course** from: Chemistry 1301A/B and 1302A/B (with an average of at least 60%)
- **1.0 course** from: (Physics 1028A/B or 1301A/B or 1501A/B) and (Physics 1029A/B or 1302A/B or 1502A/B), with an average of at least 60%  
- **1.0 course** from: Calculus 1000A/B, 1500A/B and one of Applied Math 1201A/B, Applied Math 1413, Calculus 1301A/B, 1501A/B, Math 1600A/B, Math 1225A/B or 1229A/B. (An average in the two courses of at least 60% is required). MATH 1225A/B can only be taken before AM 1201A/B, Calculus 1000A/B, 1301A/B, 1500A/B.
- **2.0 elective courses** (Must do 1.0 of Category A or B requirement)

### Points to Consider:
- Chemistry, Physics, and Math are included in the 3.0 principal courses.

### Year 2: 5.0 Courses
- **3.5 courses**: Chemistry 2271A, 2272F, 2273A, 2374A, Chemistry 2281G, 2283G, 2384B
- **1.5 elective courses**

### Year 3: 5.0 Courses
- **2.5 courses**: Chemistry 3370A/B, 3371F, 3372F/G, 3373F, 3374A/B
- **0.5 course** from: Biochemistry 2280A, Chemistry 2223B, 4493A/B (if this course is chosen it must be taken in 4th year)
- **1.5 elective courses**

### Year 4: 5.0 Courses
- **1.0 course** (or 0.5 course at the 4000 level if Chemistry 4493A/B is chosen from the list above) from: Chemistry 4400A/B, 4404A/B, 4441A/B, 4444A/B, 4471A/B, 4472A/B, 4473A/B, 4474A/B, 4481A/B, 4483A/B, 4493A/B, 4494A/B
- **1.5 courses**: Chemistry 4491E
- **2.0 elective courses**

### Points to Consider:
- See back page for important information.

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### 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.