**Degree Planning and Checklist WORKSHEET**

<table>
<thead>
<tr>
<th>YEAR 1</th>
<th>Major (3 year and 4** year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a. Principal</td>
<td>6a. major</td>
</tr>
<tr>
<td>1b. Principal</td>
<td>6b. major</td>
</tr>
<tr>
<td>2a. Principal</td>
<td>7a. major</td>
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<tr>
<td>2b. Principal</td>
<td>7b. major</td>
</tr>
<tr>
<td>3a. elective</td>
<td>8a. elective</td>
</tr>
<tr>
<td>3b. elective</td>
<td>8b. elective</td>
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<tr>
<td>4a. elective</td>
<td>9a. elective</td>
</tr>
<tr>
<td>4b. elective</td>
<td>9b. elective</td>
</tr>
<tr>
<td>5a. Cat A or B</td>
<td>10a. elective</td>
</tr>
<tr>
<td>5b. Cat A or B</td>
<td>10b. elective</td>
</tr>
</tbody>
</table>

**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**
- 6.0 courses specified by Department.
- 60% cumulative average in major 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

*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.

REFER TO THE OFFICIAL ACADEMIC CALENDAR ONLINE - WWW.WESTERNCALENDAR.UWO.CA
# Major In Scientific Computing and Numerical Methods

## 6.0 Module Courses

### Year 1: 5.0 Courses (2.0 Principal Courses)
- **0.5 course** from: Calculus 1000A/B or 1500A/B
- **0.5 course** from: Calculus 1501A/B or Calculus 1301A/B
- **1.0 course**: Computer Science 1025A/B or 1026A/B and Computer Science 1027A/B
- **3.0 elective courses** (Must do 1.0 of Category A or B requirement)

**Points to Consider:**
- Calculus and Computer Science, with no mark less than a 60%, are the 2.0 principal courses.
- 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**: Applied Math 2814F/G
- **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
- **3.0 elective courses**

### Year 3: 5.0 Courses
- **1.0 course**: Computer Science 2210A/B, 2211A/B
- **1.0 course** from: EITHER Stats 2141A/B and 0.5 course at the 2100 level or above in Applied Math, Math, or Stats and Actuarial Science OR Stats 2857A/B and Stats 2858A/B.
- **3.0 elective courses**

### Year 4: 5.0 Courses
- **0.5 course**: Applied Math 3911F/G
- **0.5 course**: Applied Math 3815A/B
- **1.0 course** from: Applied Math 4613A/B**, 4615F/G*, 4617A/B*
- **3.0 elective courses**

**Points to Consider:**
- * May be offered only in odd-numbered academic years.
- ** May be offered only in even-numbered academic years.

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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.