

# Disciplinary Bachelor of Science Programs Physics

## Majors/Honours

Year 1

Math 1111 or Math 1151  
**Math 1121**  
 Phys 1051  
**Phys 1551**  
 Chem 1001  
**Chem 1021**  
 3 credits from Biol 1001, Biol 1501, Bioc 1001,  
 Gens 1401, Psyc 1001 , or Psyc 1011  
**Math 2221** OR Comp 1631

Year 2

**Math 2111**  
**Math 2121**  
**Phys 2251**  
**Phys 2801**  
**Phys 3451**  
**Phys 3811**

Year 3

**Phys 3101**

**Phys 4411\***  
**Phys 3701\***  
 12 additional  
 credits from  
 PHYS, at least 9  
 from 3/4000  
 level

Year 4

**Physics Major**

Year 1

Math 1111 or Math 1151  
**Math 1121**  
 Phys 1051  
**Phys 1551**  
 Chem 1001  
**Chem 1021**  
 3 credits from Biol 1001, Biol 1501, Bioc 1001,  
 Gens 1401, Psyc 1001 , or Psyc 1011  
**Math 2221** OR Comp 1631

Year 2

**Math 2111**  
**Math 2121**  
**Phys 2251**  
**Phys 2801**  
**Phys 3451**  
**Phys 3811**

Year 3

**Phys 3101**

**Phys 4411\***  
**Phys 3701\***  
 3 credits Phys any level  
 3 credits from: **Math 2221, 3131\*, 3161\*, 3221\*,3411\***  
 3 credits Physics 3/4000 level

Year 4

**Phys 3201**  
**Phys 3821**  
**Math 3141\***  
 6 credits Physics 4000 level  
 6 credits Physics or Math 3/4000 level

Phys 4990-6 credits

**Physics Honours**

Students pursuing a Physics major or honours may be allowed to substitute Phys 1041 for Phys 1051 with permission of the dept.

\*Course not offered yearly- check rotation at <https://mta.ca/current-students/department-physics/physics-courses-and-programs> and <https://mta.ca/current-students/mathematics-and-computer-science/math-and-computer-science-courses-and>

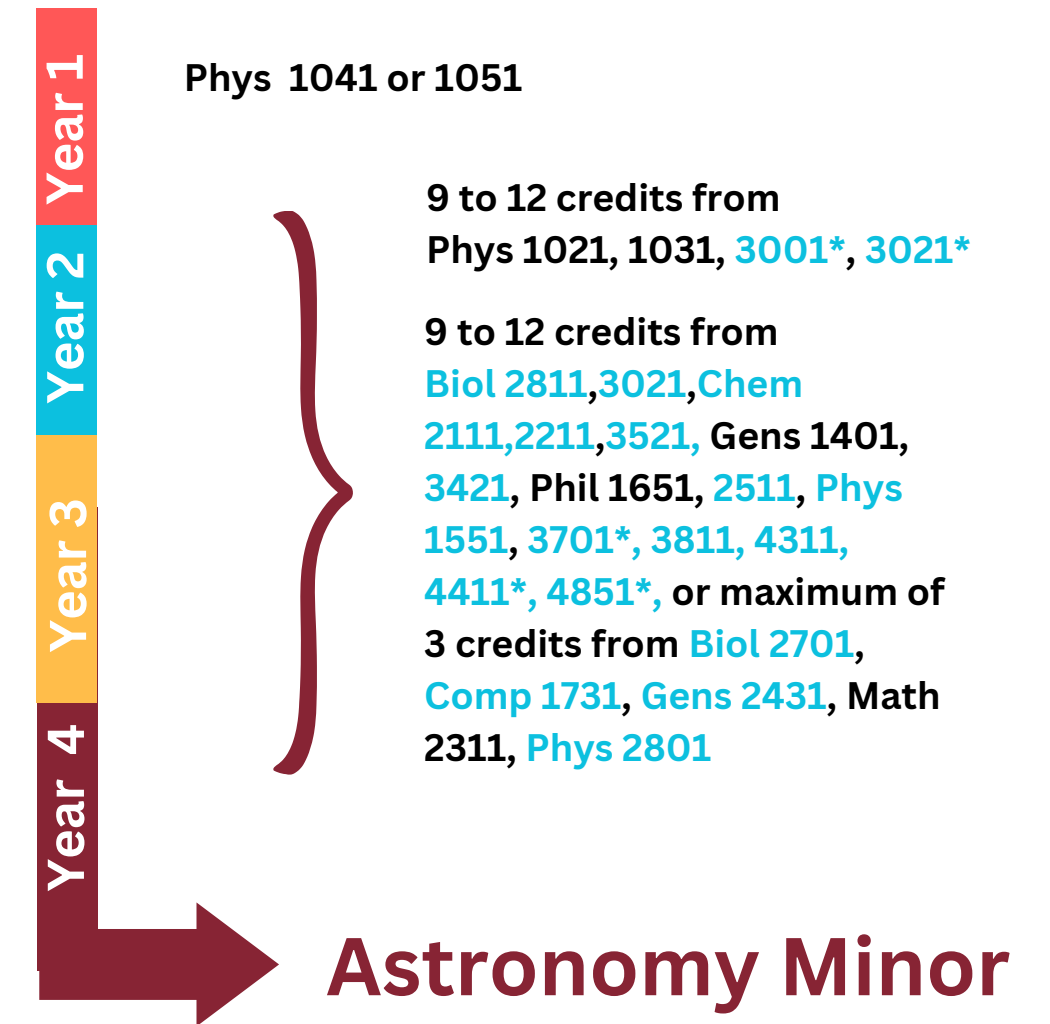
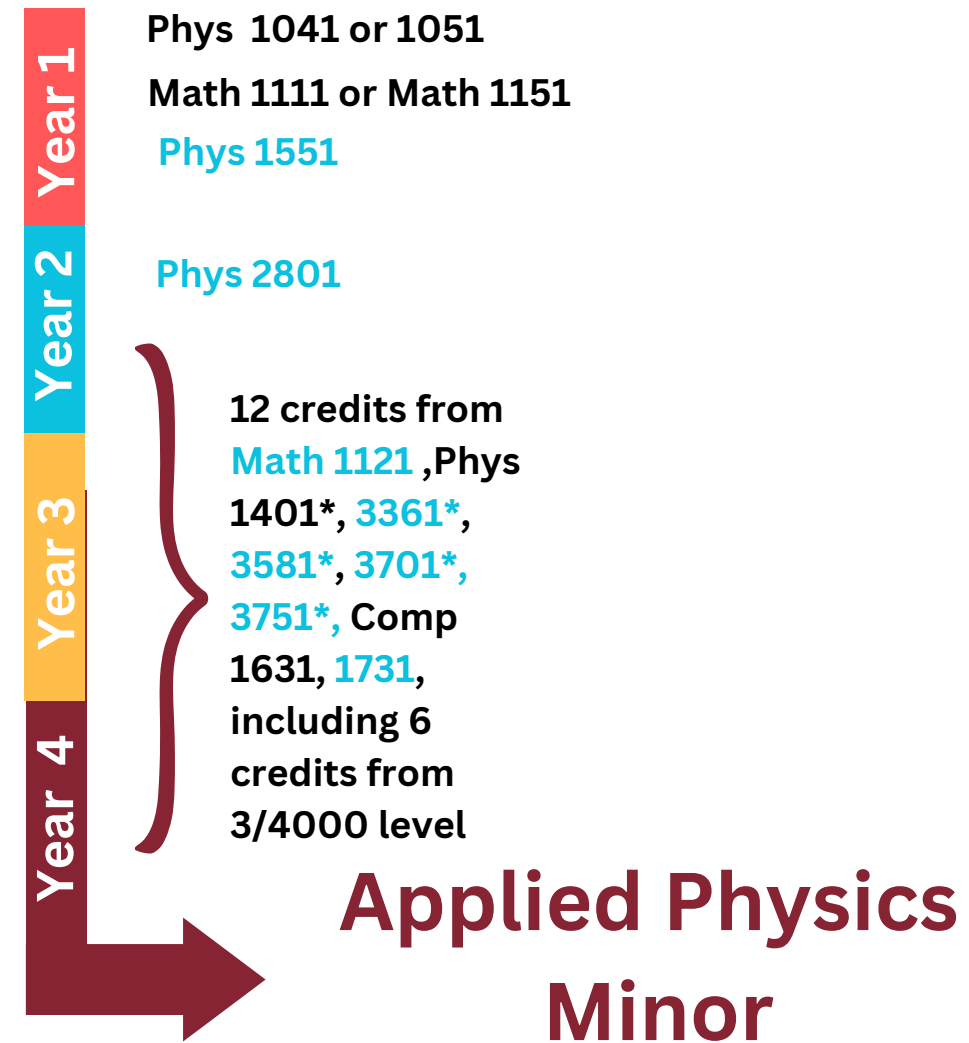
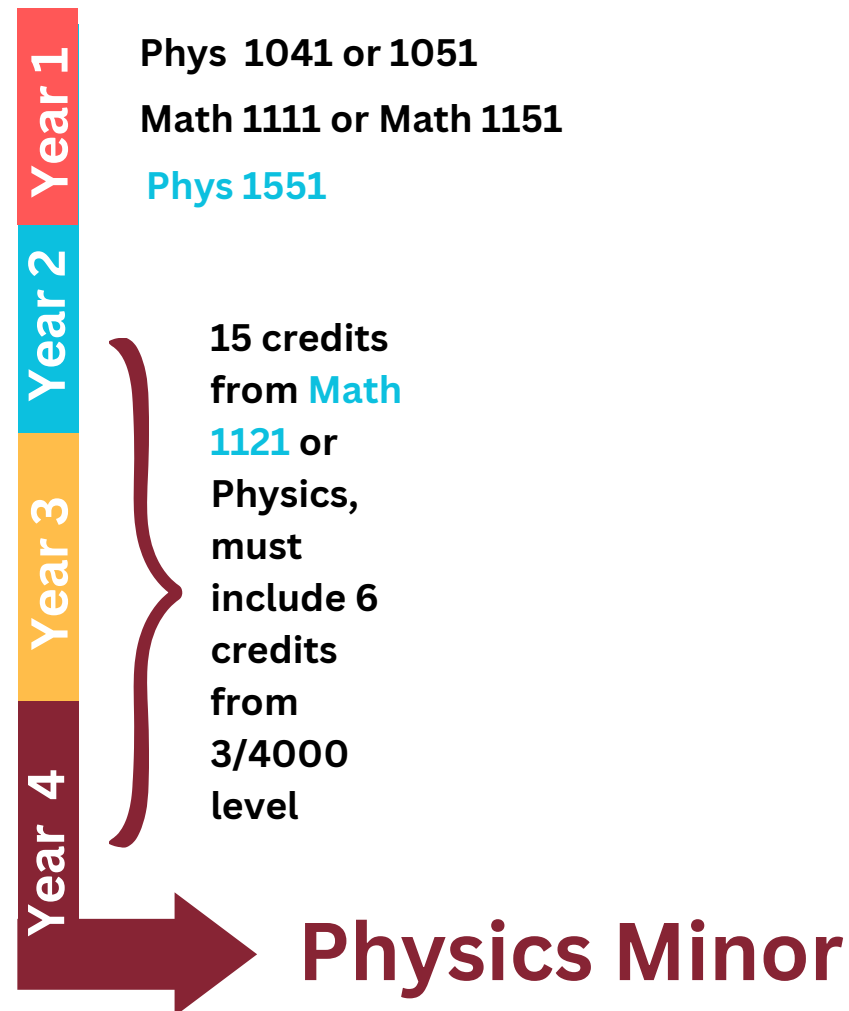
A course and number in **BLUE** means that the course has a prerequisite. See next page for all Prereqs.

## Courses with Prerequisites

- Chem 1021** • Must take Chem 1001
- Math 1121** • Must take either Math 1111 or Math 1151
- Math 2111** • Must take Math 1121
- Math 2121** • Must take Math 1121
- Math 2221** • Must take either Math 1111 or Math 1151
- Math 3131** • Must take MATH 2121, MATH 2111 and MATH 2221
- Math 3141** • Must take MATH 2111, 3 credits from MATH 2221 or MATH/PHYS 3451
- Math 3161** • Must take MATH 2111
- Math 3221** • Must take MATH 2221, MATH 2211 recommended;
- Math 3411** • Must take MATH 1121, 3 credits from MATH 2221 or MATH/PHYS 3451 and 3 credits from COMP or PHYS
  
- Phys 1551** • Must take 3 credits from MATH 1111 or 1151 AND 3 credits from PHYS 1041 or 1051
- Phys 2251** • Must take PHYS 1551 and MATH 1121
- Phys 2801** • Must take 3 credits from MATH 1111 or 1151 AND 3 credits from PHYS 1041 or 1051
- Phys 3101** • Must take PHYS 1551, MATH/PHYS 3451, MATH 2111, and MATH 2121
- Phys 3201** • Must take PHYS 2251 and MATH 2111
- Phys 3451** • Must take MATH 2111 and 3 credits from MATH 2121 or PHYS 2251
- Phys 3701** • Must take PHYS 2801 and MATH 2111;
- Phys 3811** • Must take PHYS 2251
- Phys 3821** • Must take PHYS 3811 and MATH/PHYS 3451
- Phys 4411** • Must take PHYS 3811 and MATH/PHYS 3451

All courses needing prerequisites may also be taken with permission of the Department.

# Disciplinary B.Sc programs Physics Minors



Only one Phys 1021, 1031 and 1401 can be used in Phys minor.  
Students who complete the Minor in Applied Physics may not complete this minor

\*Course not offered yearly- check Physics rotation at <https://mta.ca/current-students/department-physics/physics-courses-and-programs> and Math/CS <https://mta.ca/current-students/mathematics-and-computer-science/math-and-computer-science-courses-and>  
For all other courses please check for possible rotations with the appropriate departments.

## Courses with Prerequisites

- Biol 2701** • Must take BIOL 1001 *or* 1501 *and* 3 credits from MATH 1111, 1151 *or* 1311
- Biol 2811** • Must take BIOL 1001 *and* BIOL 1501
- Biol 3021** • Must take BIOL 2301 *and* BIOL 2401
- Chem 2111** • Must take CHEM 1021
- Chem 2211** • Must take CHEM 1021 *and* MATH 1121. PHYS 1051 recommended
- Chem 3521** • Must take CHEM 2111 *and* CHEM 2411
- Comp 1731** • Must take Comp 1631
- Gens 2431** • Must take GENV 1201 *or* GENS 1401
- Gens 3421** • Must take GENS 2421 *and* 3 credits from GENS 2431 *or* BIOL 2701
- Math 1121** • Must take either Math 1111 *or* Math 1151
- Phil 2511** • Must take 3 credits from Humanities 1600 Series
- Phys 1551** • Must take 3 credits from MATH 1111 *or* 1151 AND 3 credits from PHYS 1041 *or* 1051
- Phys 2801** • Must take 3 credits from MATH 1111 *or* 1151 AND 3 credits from PHYS 1041 *or* 1051
- Phys 3001** • Must take PHYS 1551 *and* PHYS 1031
- Phys 3021** • Second-year standing *and* must take PHYS 1021 *or* 1031
- Phys 3361** • Must take COMP 1631 *and* PHYS 1551
- Phys 3581** • Must take PHYS 1551
- Phys 3701** • Must take PHYS 3811 *and* MATH/PHYS 3451
- Phys 3751** • Must take PHYS 1551 *and* CHEM 1021
- Phys 3811** • Must take PHYS 2251
- Phys 4311** • Must take PHYS 2251 *and* PHYS 2801 *and* 3 credits from MATH 2221 *or* PHYS 3451
- Phys 4411** • Must take PHYS 3811 *and* MATH/PHYS 3451
- Phys 4851** • Must take PHYS 3821

All courses needing prerequisites may also be taken with permission of the appropriate Department.