# McGill Major in Physics

## Beginning Fall 2023

### Fall U1

**MATH 222**
Calculus 3
**Prereq.** MATH 141 and MATH 133

**PHYS 230**
Dynamics of Simple Systems
**Prereq.** PHYS 131
**Coreq.** MATH 222

**PHYS 257**
Experimental Methods 1
**Coreq.** PHYS 230

**COMP 208**
Computer Programming for Physical Sciences
**Prereq.** MATH 141 and MATH 133

### Winter U1

**MATH 223**
Linear Algebra
**Prereq.** MATH 133

**PHYS 232**
Heat and Waves
**Prereq.** PHYS 142, CHEM 120 and PHYS 230

**PHYS 241**
Signal Processing
**Prereq.** PHYS 142

**PHYS 258**
Experimental Methods 2
**Prereq.** PHYS 257

### Fall U2

**MATH 315**
ODEs
**Prereq.** MATH 133 and MATH 222

**MATH 314**
Adv. Calculus
**Prereq.** MATH 133 and MATH 222

**PHYS 340**
Majors E&M
**Prereq.** PHYS 142 and MATH 222
**Coreq.** MATH 314

**PHYS 346**
Majors Quantum Physics
**Prereq.** PHYS 230 and PHYS 232

### Winter U2

**PHYS 331**
Topics in Classical Mechanics
**Prereq.** PHYS 230 and MATH 315

**PHYS 342**
Majors EM Waves
**Prereq.** PHYS 340 MATH 314 and MATH 315

**PHYS 333**
Thermal and Statistical Physics
**Prereq.** PHYS 232

**PHYS 339**
Measurements Lab in General Physics
**Prereq.** PHYS 241

### Fall U3

**4 courses selected from:**

**PHYS 320** Intro Astrophysics
**PHYS 328** Electronics
**PHYS 404** Climate Physics
**PHYS 434** Optics
**PHYS 439** Lab in Modern Physics
**^PHYS 449** Majors Research Project
**^*PHYS 459 D1** Research Thesis
**PHYS 469** Advanced Physics Laboratory 2
**^PHYS 479** Physics Research Project
**PHYS 512** Computational Physics
**PHYS 521** Astrophysics

### Winter U3

**PHYS 319** Intro to Biophysics
**PHYS 321** Data Science and Observational Astrophysics
**PHYS 359** Advanced Physics Laboratory 1
**PHYS 432** Fluids
**^PHYS 449** Majors Research Project
**^*PHYS 459 D2** Research Thesis
**^PHYS 479** Research Project
**PHYS 519** Adv. Biophysics

**NOTES:** ^Maximum 6 cr can be research projects (PHYS 449/459/479). PHYS 449 and 479 can be taken in *either* the fall or the winter.
* PHYS 459 D1 and D2 must be taken together.

**PHYS 447**
Applications of Quantum Mechanics
**Prereq.** PHYS 346