# McGill Honours in Physics

Transition from Major to Honours after U1

## **MATH 223**

Linear Algebra

Prereq. MATH 133

#### **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

#### **MATH 314**

Adv. Calculus

**Prereq.** MATH 133 and MATH 222

#### **MATH 315**

**ODFs** 

Prereq. MATH 133 and MATH 222

#### **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

### **MATH 475**

Hon. PDEs

Prereq. MATH 223, MATH 314 and MATH 315

#### **PHYS 260**

Modern Physics and Relativity

**Prereq.** PHYS 142 and MATH 222

#### **PHYS 350**

Hon. Electricity and Magnetism

**Prereq.** MATH 314 and MATH 315

#### **PHYS 357**

Hon. Quantum Physics 1

Prereq. MATH 223 and PHYS 230

#### **MATH 249**

Hon. Complex Variables

Prereq. MATH 314

#### **PHYS 362**

Statistical Mechanics

**Prereq.** MATH 314 and PHYS 232

#### **PHYS 351**

Hon. Classical Mechanics 2

Prereq. PHYS 230

#### **PHYS 457**

Hon. Quantum Physics 2

Prereq. PHYS 357

#### 1 of:

PHYS 359 Adv. Physics Lab 1 (winter)

#### OR

PHYS 469 Adv. Physics Lab 2 (fall)

#### 6 courses selected from:

PHYS 404 Climate Physics

PHYS 434 Optics

PHYS 512 Computational Physics

PHYS 521 Astrophysics

PHYS 534 Nanoscience & Nanotechnology

PHYS 551 Quantum Theory

PHYS 557 Nuclear Physics

PHYS 558 Solid State

PHYS 559 Adv. Stat Mech

PHYS 432 Fluids

PHYS 514 General Relativity

PHYS 519 Adv. Biophysics

PHYS 519 Adv. Biophysics PHYS 562 Electrodynamics

PHYS 567 Particle Physics

#### **PHYS 352**

Hon.

Electromagnetic Waves

Prereq. PHYS 350

#### 2 courses from:

\*PHYS 359 Adv. Physics Lab 1

\*PHYS 469 Adv. Physics Lab 2

**^PHYS 459D1** Research Thesis

**^PHYS 459D2** Research Thesis

PHYS 479 Physics Research Project

\*Students may not choose the lab used to meet the PHYS 359 or 469 requirement.

^ PHYS 459D1 and D2 must be taken together.