



Physics 112

Course Outline 2012 - 2013

Teacher: Mr. Peter MacDonald

Room 522

peter.macdonald3@nbed.nb.ca

<http://jmh.nbed.nb.ca/teacher/mr-macdonald>

Twitter: @mrpmacdonald

Chapter 1: Introduction to Physics

- Problem Solving Models
- Mathematical Review
- Metric Units
- Unit Conversions

Chapter 2: Kinematics

- Position and Displacement
- Average Velocity
- Velocity and Acceleration
- Graphical Analysis
- Mathematical Analysis
- Vector Addition

(Chapters 2 and 3 of MHR)

Chapter 3: Dynamics

- Types of Forces and FBDs
- Newton's Laws

(Chapters 4 and 5 of MHR)

Chapter 4: Waves and Sound

- Period and Frequency
- Types of Waves
- Wave Equation
- Sound
- Doppler Effect
- (Chapter 8 and 9 of MHR)

Chapter 5: Electromagnetic Radiation

- Nature of Light
- EM Spectrum
- Color

(Chapter 9 of MHR)

Chapter 6: Optics

- Mirrors
- Refraction
- Lenses
- Diffraction

Evaluation:

Tests	45%
Labs	25%
Final Exam	30%

Materials:

Binder & Paper

USB Memory Stick

Scientific Calculator

Ruler/Protractor

Pen/Pencil

Textbooks: [Total Physics Flexbook](#) & Physics (McGraw-Hill-Ryerson)