April 13 - Report Cards Go Home (Wednesday)

April 14 - Parent-Teacher (Thursday)

April 29 - Professional Learning Day (Friday)

May 5 - NBTA Meetings (Thursday)

May 6 - NBTA Council Day (Friday)

May 23 - Victoria Day (Monday)

Physics 112

Monday, April 4/16

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Explain That Stuff - April 8/16

Midterm - April 21/16

1. Return and Review -> Assignment: U1-S3

2. Test - Unit 1 -> Wednesday, April 6/16
   See the outline on the next two pages.
   MC and Problems

3. Unit 2 - Dynamics
   - Section 1: Types of Forces and FBD's
   - Dynamics
   - Force, Net Force
   - Five Specific Forces

4. Worksheet - Practice Problems (PP) - C4 - Page 137: 1-4 - HW

Topics: Test Unit 1

1. kinematics
2. two types of physical quantities:
   (i) scalar quantity - has magnitude only
   - examples of scalar quantities
   (ii) vector quantity - has magnitude and direction
   - examples of vector quantities
   - know which directions are positive and which are negative by convention
3. arrows are used to represent vector quantities
4. definition of resultant
5. two methods used to add vector quantities:
   (i) tip-to-tail method
   (ii) parallelogram method
6. use rubric to determine a resultant graphically
7. use rubric to determine a resultant analytically
8. two types of frames of reference:
   (i) stationary/fixed
   (ii) moving
9. motion vocabulary and definitions
10. use signs of velocity and acceleration to describe an object's motion, etc
11. two types of motion
    (i) uniform
    (ii) uniformly accelerated motion

Topics: Test Unit 1 (Continued)

12. position-time graphs - interpret graphs
    - identify type of motion
    - slope = velocity
    - determine if/when an object changes direction
13. velocity-time graphs - interpret graphs
    - identify type of motion
    - slope = acceleration
    - area -> distance and displacement
    - be able to calculate average speed, average velocity and average acceleration
    - identify if/when an object changes direction
14. word problems - follow checklist to obtain full value
    - uniform motion - 1 formula
    - uniformly accelerated motion - 4 formulas
    - quadratic formula
15. acceleration due to gravity - influenced by mass of planet and distance from planet
    - symbol -> $\vec{g}$
    - on Earth $\vec{g} = -9.80\ m/s^2$
    - assuming no air resistance when working with freely falling bodies
    - interpret ball toss graphs

Science 122

Monday, April 4/16

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Midterm - April 28/16

1. Quiz - Tuesday -> Ray Diagrams for Spherical Mirrors
2. Check Example Part (a)
3. Magnification Equation
4. Worksheet: Red Text - Spherical Mirrors -> HW

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5. Lenses
6. Convex Lens
7. Images Formed by Convex Lenses
8. Worksheet: Convex Lens - Ray Diagrams
9. Concave Lenses and The Images They Form
10. Lens Equation, Magnification and Sign Conventions

Science 10

http://mvhs.nbed.nb.ca/

Monday, April 4/16

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1. Lab - Types of Reactions, Gas Collection and More
   - 3 Days Late

2. Rearranging Equations -> Worksheet - 1st Column - HW

3. Metric Conversions -> Worksheet - 1st Column - HW

4. Experiment: Measurement and Significant Digits
   - To Be Continued
   - Each person submits a lab sheet for marking.
   - Tuesday, April 5/16

5. Quiz - Start of Physics to the End of Metric Conversions
   More Information Tomorrow
   Tentatively Thursday

Physics 122

Monday, April 4/16

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Explain That Stuff - April 8/16

1. Check -> Worksheets -> Relative Velocity Problems
   Worksheet -> 1D Collisions
   Worksheet -> Collisions: Elastic and Inelastic
   Worksheet -> 2D Collisions
   Worksheet -> Physics 30 Worksheet #4

2. Assignment: U1-S3& 4 -> Tuesday, April 5/16 MC + P's

3. Test - Unit 1 -> Friday, April 8/16

4. Experiment 10.2 - Torques (Page 67)
   Experiment 9.1 - Conservation of Momentum (Page 55)

5. Unit 2 - Projectiles, Circular Motion, Law of Gravitation, SHM

Test Prob. → Force

→ push/pull (1)

→ ~~sign~~

→ inclined plane. (1)

Torque

→ static equilibrium no angles / angles (1)

6 problems

10min/prob.

Relative Vel.

→ boat/plane (1)

→ ~~intersection~~

Collisions/Expl (1)

→ 1D (1) (elastic/inelastic)

→ 2D

Physics Labs

Physics 112

Physics 122

_____ /10

Title - _____

Date Due - _____

Recorder - _____

Team Members - _____

_____

_____

_____

_____

Title - Experiment 10.2 - Torques (Page 67)

Date Due - _____

Recorder - _____

Team Members - _____

_____

Cover

Purpose - (1)

Materials - 2 retort stands (1)
- 2 right-angled clamps
- 1 support rod
- 1 meter stick
- 3 meter-stick clamps
- 2 spring scales (5 N capacity) * zero
- 500 g mass

Procedure - Refer to page 68 in the "Physics" lab manual. (1)

Observations and Data - Complete Table 1 (9) and 2 (6).

Analysis - Answer #1 (3)

#2 (1)

#3 show three calculations (3)

- Add absolute value signs to numerator.

#4 (2)

#5 (2)

Total = /29 -> /10

Title - Experiment 9.1 - Conservation of Momentum (Page 55)

Date Due - _____

Cover

Recorder - _____

Team Members - _____

_____

Purpose - (1)

Materials - (1)

Procedure - Refer to page 55 in the "Physics" lab manual. (1)

Observations and Data - Complete Table 1. (3)

Analysis - Answer #1 (2)

#2 Labeled sheet. (5)

#3 (2)

#4 (1)

Total = /16 -> /10