April 29 - Professional Learning Day (Friday)

May 5 - NBTA Meetings (Thursday)

May 6 - NBTA Council Day (Friday)

May 23 - Victoria Day (Monday)

May 27 - Professional Learning Day (Friday)

Physics 112

Thursday, April 21/16

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

http://mvhs-sherrard.weebly.com/

*Library Books

Explain That Stuff - April 22/16

1. Midterm
2. Worksheet: Text: Page 163, PP #1-3
   Text - Page 168 #4-7

} #W -> Friday

Science 122

Thursday, April 21/16

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http://mvhs-sherrard.weebly.com/

Midterm - April 28/16 (Thursday)

1. Midterm Topics - Continue
2. Pressure Gauges
3. Worksheet: Pressure and Depth in a Static Fluid - Try More

4. Pascal's Principle
5. Archimedes' Principle
6. Worksheet: Archimedes' Principle

Science 122 - Midterm Topics

1. Complex Circuit. * R's given

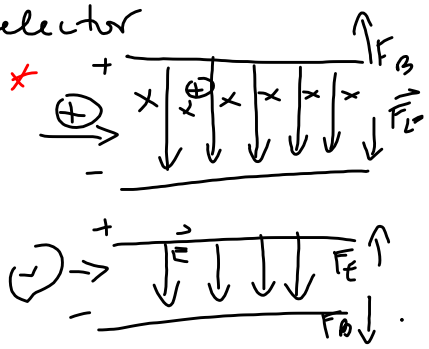
2. Magnetism
   - → Find B (3 cases)
   - → $F = IlB\sin\theta$
   - * → $F = qvB\sin\theta$
   - → * $r = \frac{mv}{qB}$ ← speed

→ velocity selector

$v = \frac{E}{B}$ *

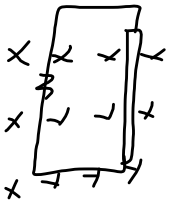
$F_E = E$

$F_B = B$



→ $\left[\frac{q}{m} = \frac{2V}{r^2B^2} \right]$ *

→ $V = EMF = BLv$ *
$V = IR$
$F = IlB\sin\theta$



→ Transformers → not on midt.

→ Optics
- → double lens. [Concave II divery. *
- → mirror (spherical). *
  - concave) converging.

→ Fluid Mechanics
- hydrostatics → pressure ① *
- → hydrostatic eq^n. *
  - $P_2 = P_1 + \rho g h$

Science 10

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

Thursday, April 21/16

Assignment: Word Problems - Monday, April 25/16

1. Check -> Worksheet - Constant and Average Velocity Problems
2. Position-Time Graphs Using the Motion Detector
3. Worksheet: Position vs Time Graph - HW

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4. Velocity vs Time Graphs
5. Worksheet: Velocity-Time Graphs

Physics 122

Thursday, April 21/16

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Explain That Stuff - April 22/16

Midterm - Tuesday - April 26

1. Experiment 10.2 - Torques (Page 67)
   Experiment 9.1 - Conservation of Momentum (Page 55)
   April 28/16

2. Check -> Worksheet - Banked and Unbanked Curve Problems

3. Formative Assessment - Uniform Circular Motion

4. Universal Law of Gravitation
   - Theories of Planetary Motion
   - Kepler's Three Laws of Planetary Motion

5. Worksheet: Kepler's Laws of Motion

Formative Assessment: Circular Motion

Thursday, April 21/16

A body travelling in a clockwise direction, moves uniformly with a speed of 3.5 m/s on a flat circular track of diameter 10 m.

a) What is the frequency of the body? (0.11 Hz)

b) What is the coefficient of static friction between the body and the track? (0.25)

c) If the centripetal force acting on the body is 12 N, what is the mass of the body?

a) $v = 3.5\ m/s$, $r = 5.0\ m$, $f = ?$

$v = \frac{2\pi r}{T}$, $f = \frac{1}{T}$

$\boxed{v = 2\pi r f}$

$f = 0.11\ Hz$.

b) $v = \sqrt{r g \mu_s}$ ← $a_c = 4\pi^2 r f^2$

$\mu_s = \frac{v^2}{rg}$ $\left[a_c = \frac{v^2}{r}\right]$

c) $F_c = 12\ N$, $m = ?$

$F_c = m a_c$

$a_c = \frac{v^2}{r}$

$F_c = \frac{mv^2}{r}$

$F_c = F_{fs}$

$F_c = \mu_s N$

$F_c = \mu_s mg$

$\vec{N}$

$\vec{w}$

$F_c = F_{fs} = ma_c = \frac{mv^2}{r} = \frac{4\pi^2 r m}{T^2} = 4\pi^2 r m f^2 = \mu_s N$

Midterm Prob.

Opt. 1. push/pull or incline plane

2. Static torque

3. 2D collision/explosion

4. projectile -> horizontal

5. projectile -> angle

6. Circular motion, banked/unbanked