Physics 2131
General Physics Lab I
<u>Coefficients of Friction Prelab</u>

1) What is the objective of this experiment?

2) Starting from Newton's Second Law, derive an equation for the coefficient of static friction between the wooden block and the inclined plane that depends only on the angle of repose between them.

3) Again, starting from Newton's Second Law, show that the equation to calculate the coefficient of kinetic friction between an incline and an object sliding down it is *very* similar to the equation derived in Question 2. Assume that the object is initially sliding down the incline with a constant velocity.