**Physics Formulas (2nd Semester, 2017-2018)**

s = r or ∆x = r v = r a = r

$ω=\frac{∆θ}{∆t}$ $α=\frac{∆ω}{∆t}$

 = ot + ½t2 2 = o2 + 2(f – i)  = o + t

 = rF = I L = rp = rmv L = I Li = Lf Iii = Iff

KErot = ½I2 KEtrans = 1/2mv2  PEgrav = mgh PEi + KEi = PEf + KEf

$p=mv$ $F∆t=∆p$ $P\_{i}=P\_{f}$ $m\_{1}v\_{1}+m\_{2}v\_{2}= m\_{1}v\_{1}^{'}+m\_{2}v\_{2}^{'}$

$F\_{e}=\frac{kq\_{1}q\_{2}}{r^{2}}$ $E=\frac{kQ}{r^{2}}$ F=qE

$a=\frac{qE}{m}$ F=ma w = mg v = v0 + at v2 = v02 + 2a∆x

R = ρL/A    V=IR    P=VI    I=ΔQ/Δt

 v = f Vsound in air ≈331.3 + 0.6TC Vsound in air = $331.3 \sqrt{\left(\frac{T\_{c}}{273.15}\right)+1}$ d = vt

fo = fs v =  n1 sin 1 = n2 sin 2 c = sin-1(nr/ni)

$\frac{1}{f}= \frac{1}{d\_{o}}+ \frac{1}{d\_{i}}$ $M= \frac{H\_{i}}{H\_{o}}$ = $\frac{-d\_{i}}{d\_{o}}$