**ENERGY**

|  |  |  |  |
| --- | --- | --- | --- |
| **Centripetal Acceleration**$a\_{c}=\frac{v^{2}}{r}=\frac{4π^{2}r}{T^{2}}$  | **Centripetal Force**$F\_{C}=ma\_{c}$  | **Velocity**$$v=\frac{d}{t}=\frac{2πr}{T}$$ | **Universal Gravitation**$$F\_{G}=\frac{Gm\_{1}m\_{2}}{r^{2}}$$G=6.67x10-11 |
| **Work**W=FdW=ΔK= KF-KiW=ΔU= UF-Ui | **Power**$$P=\frac{W}{t}$$ | **Kinetic Energy**$$K=\frac{1}{2}mv^{2}$$ | **Potential Energy**U=mgh$$U=\frac{1}{2}kx^{2}$$ |
| **Total Mechanical Energy** TE= K + U |
| **Conservation of Energy**  TEi= TEf |

**MAKE SURE YOU MEMORIZE ALL EQUATIONS**

|  |  |  |  |
| --- | --- | --- | --- |
| **Centripetal Acceleration** $a\_{c}=$ | **Centripetal Force** $ F\_{C}=$ | **Velocity**$$v=$$ | **Universal Gravitation** $F\_{G}=$ G= |
| **Work**W= W=W= | **Power** $P=$ | **Kinetic Energy**$$K=$$ | **Potential Energy**U=$$U=$$ |
| **Total Mechanical Energy** TE=  |
| **Conservation of Energy**   |