Bernoulli’s Equation (Knittig Notes)

* As a fluid moves through a pipe of varying cross section and elevation, the pressure changes along the pipe
* Bernoulli’s equation is a consequence of energy conservation
* THIS IS FOR AN IDEAL FLUID (see notes on continuity for what that means)

Derivation of Bernoulli’s Equation

Work done by the fluid



Work is change in Kinetic and Potential Energy



Bernoulli’s Equation



Bernoulli’s Theorem



What it says:

* The sum of pressure, the kinetic energy per unit volume, and the potential energy per unit volume has the same value at all points along streamline

**Venturi tube**

* a pipe with a large cross sectional area flowing to a smaller one
* Can be used to measure the speed of fluid flow



Note: Swiftly moving fluids exert less pressure than slowly moving ones

