308 notes 4.1-4.5

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1 Kinetic Energy and Work

Taylor uses T as the kinetic energy...why...
Kinetic energy– work theorem, boring...

2 Potential Energy and Conservative Forces

Equation (4.13) used the parametrization, very fancy.

2.1 Conservative forces

Taylor mentions the conservation of energy multiple times so far. I wonder if he's up to something.

2.2 Nonconservative forces

Taylor used friction as an example of nonconservative forces to show that energy is not conserved with the presence of nonconservative forces. I guess conservation of energy is not broken, it's just the ground is a loop hole for ideal practice problems.

3 Forces as The Gradient of Potential Energy

Feel like using the gradient vector is cheating because if we get a vector out of derivatives from a scalar, we would have some problem lol.

4 The Second Condition that F is Conservative

I don't like curl. Curl is like the rotation of the vector from a direction which is perpendicular to all possible vectors in the vector field, which is really un-intuitive, and probably wrong to say so...

5 Time Dependent Potential Energy

Confusing.