Physics 440, Autumn 2019   **Reading Quiz 3 (2.1-2.4)**

Due October 1, 12:00pm (Upload your answers to the D2L submission folder)

1. What concepts or ideas from this reading do you have questions about? These can be concepts that you didn't understand or would like to learn more about. For each concept, write a few sentences that describe the concept as best you can and include your questions about the concept.
2. Given a function F(x, $\dot{x}$, t), what is the difference between δF and dF? What does each of these tell you about F?
3. The Euler-Lagrange equation contains both partial and total derivatives. Why? What is the difference between these two types of derivatives?
4. What do we use Lagrange multipliers for? How do they work?