Physics 2211: *Matter and Interactions*
Chapter 2 Standards

1. I can clearly specify the system and the surroundings for every problem.

2. I can apply the momentum principle to solve problems.

3. I can calculate the net force experienced by an object.

4. I can use the momentum update formula to relate changes in the momentum of an object/system to the net force.

5. I can apply appropriate assumptions to use the position (or momentum) update formula.

6. I can predict motion iteratively when forces are changing.

7. I can calculate the vector force due to a stretched spring.

8. I can interpret/draw the position-time and velocity-time and force-time graphs for an object.

9. I can list the forces exerted on a system and draw free body diagrams for the system.

10. I can relate the momentum principle to the vector trajectory of an object subject to a constant force.

11. I can estimate interaction times by making educated assumptions.

12. I can explain what is meant by and defend the use of physical models.

13. I can assess the appropriateness of approximations for a given physical model.

14. I can use the momentum principle to relate the initial and final momentum of a system.

15. I can write a VPython program that models an object moving under the influence of a constant force.