

## Summer Session 2025 – Equipment and Materials

### Physics 122:

The labs are designed to be completed at home without access to the resources of a school. A stopwatch and meter stick. A few labs make use of interactive online simulator activities.

All other materials are listed by laboratory:

<b>Ramp Forces and Motion Lab:</b> <ul style="list-style-type: none"><li>▪ 2 wooden rulers</li><li>▪ 2 rubber erasers</li><li>▪ 2 sticks of chewing gum</li><li>▪ 1 coin</li><li>▪ 1 paper clip</li><li>▪ books</li></ul>	<b>Equilibrium Lab:</b> <ul style="list-style-type: none"><li>▪ online interactive simulator (link in the lab instructions)</li></ul>
<b>Horizontal Projectile Lab:</b> <ul style="list-style-type: none"><li>• small steel ball or marble</li><li>• plastic ruler with groove in the center or a book</li><li>• carbon paper</li><li>• meter stick</li><li>• masking tape</li><li>• stopwatch</li></ul>	<b>Gravity Force Lab:</b> <ul style="list-style-type: none"><li>▪ online interactive simulator (link in the lab instructions)</li></ul>

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### Chemistry 122:

The labs are designed to be completed at home without access to the resources of a school. A scale for measuring mass and a thermometer are used in multiple labs and students will have to acquire both. There is an inexpensive scale (\$20) available on Amazon: [Digital Scale](#). There is also an inexpensive thermometer (\$20) available on Amazon: [Digital Thermometer](#).

All other materials are listed by laboratory:

<b>Specific Heat Capacity Lab:</b> <ul style="list-style-type: none"><li>▪ 600mL beaker / pot for heating water</li><li>▪ styrofoam cup OR coffee mug</li><li>▪ thermometer</li><li>▪ scale</li><li>▪ 2 metal objects (iron nail, aluminum foil, copper wire, ...)</li></ul>	<b>Alka-Seltzer Lab:</b> <ul style="list-style-type: none"><li>▪ small beaker or cup</li><li>▪ thermometer</li><li>▪ scale</li><li>▪ 10 tablets of Alka-Seltzer</li><li>▪ mortar and pestle (or something with which to grind tablets)</li><li>▪ food coloring OR 2 glow sticks.</li></ul>
<b>Spontaneity Lab:</b> <ul style="list-style-type: none"><li>▪ package of matches</li><li>▪ deck of cards</li><li>▪ 10 coins</li></ul>	<b>Isomer Models Lab:</b> <ul style="list-style-type: none"><li>▪ package of toothpicks</li><li>▪ bag of mini-marshmallows</li></ul>
<b>Milk to Plastic Lab:</b> <ul style="list-style-type: none"><li>▪ 600mL beaker / pot for heating milk</li><li>▪ 250mL (1 cup) of milk</li><li>▪ 20 ml of vinegar</li></ul>	