Chemistry 211 Laboratory
Simple Distillation

In this experiment simple distillation will be performed in order to separate ethanol from water. Assemble the apparatus as shown in the diagram. Add 20 mL of the ethanol-water solution and a boiling stone to the distillation flask. Begin the heating with the hot plate. Since water is relatively a high-boiling (low vapor pressure) substance, it maybe appropriate to initiate the heating on the maximum voltage setting. Watch the distillation flask to see that it does not boil so vigorously that the liquid runs over the top. Distillation should be dropwise. Record the temperature on the thermometer for every 0.5 mL of the distillate received. Later, make a graph (in your laboratory notebook) of temperature versus the volume of the distillate. Continue distillation until 15 mL of distillate is collected.