CHEG 4137 and 4139

<u>Pre-laboratory Report Worksheet: Sodium Dodecyl Sulfate-Polyacrylamide Gel Electrophoresis (SDS-PAGE)</u>

Complete this sheet with your group prior to your first lab session and turn it in to the instructor or TA.

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Group Members:
1) What are the major learning objectives of this experiment? (Hint: Gaining experience with large scale equipment is not a major learning objective here)
2) During SDS-PAGE, why do polypeptides (or proteins) separate when placed in an electrical field? Why do some proteins migrate farther in a given amount of time than other proteins?

3) What variables could be changed in this experiment? How will the change of the variables affect the SDS-PAGE results?
4) How is the protein molecular weight determined in SDS-PAGE?
5) Where will the waste from this experiment be disposed of?

6) Create a detailed procedure for preparing and running hand-casted gels.					

If your group will submit a video for this experiment:
7) What steps of the experiment will you capture on video?
8) What are the safety hazards to be especially aware of when filming the experiment?

9) Experimental Hazard Analysis: List potential safety hazards present in your experiment. For each hazard you list, recommend a procedure for avoidance and a procedure in case of an accident.

Experimental Step	Potential Hazard(s)	Recommended Procedure to Avoid Accident	Recommended Procedure in Case of Accident