* Procedure
1) Divide into 2 equal teams.

2) Obtain the manufacturer information (manufacturer, model number) for the scale and sieve shaker. Record this information.

3) Weigh the container used for pouring the Quikrete All-Purpose Sand into the sieves. Record this information.

4) Weigh each individual sieve pan (3/8”, #4, #8, #16, #30, #50). Record this information.

5) Pour about 1 kg of sand into the container.

6) Weigh the container and sand. Record this information.

7) Empty the container of sand into the sieves.

8) Place the sieves on the sieve shaker.

9) Plug in the sieve shaker.

10) Wait for a few minutes of shaking.

11) Unplug the sieve shaker.

12) Weigh each sieve pan. Record this information.

13) Share this information with the other team.

* Lab Report
1) Calculate percentages passing, total percentages retained, or percentages in various size of fractions to the nearest 0.1% on the basis of the total weight of the initial dry sample.

2) Use a spreadsheet application or a computer programming language to create a semi-log plot of the grain size distribution. See a blank example towards the end of the Lab.

3) Calculate the fineness modulus.

Report the recorded values in a summary table (use a spreadsheet or word processor).

Report Discussion Questions (Post-Lab Questions):
1) What is the mean of the fineness modulus for the 2 teams?
2) What is the standard deviation and variance of the fineness modulus for the 2 teams?

3) a) Is the fineness modulus standard deviation between the 2 teams greater than 5 percent?
   b) If so, then how could we reduce the variability?

4) a) Describe how this lab could be improved.
   b) Speculate how improving the lab would alter the mean, standard deviation, and/or variance between the 2 teams.

5) Why does the fineness modulus of fine aggregate matter, i.e., why are you calculating that value?

Follow the steps as specified in the CVEN 3121 Laboratory Manual Lab Report Format section.

Refer to the Class Syllabus for information on how to properly cite references and display tables and figures.
Example of Blank Semi-log Aggregate Gradation Chart
Works Cited