An introduction to ceramic chemicals and glaze calculation for gas firing. This course is to fill the Ceramics Chemistry portion of the art curriculum. A continuing study in ceramics for advanced ceramics students.

The student will choose a gloss, semi mat or mat glaze to work with. He will take a collection of about 12 colorants and create a glaze board of 144 tile glaze combinations and 55 tiles that show the colorants at an array of color strengths form .25% to 5 %.

First choose the glaze that you would like to work with.


Make a 6000 gram batch of the glaze. Your glaze should be a clear glaze, no colorants.

You will need to purchase plastic cups to measure out 100 gram dry weight batches for testing.

The colorants that you will use are as follows:

1. Cobalt Oxide
2. Cobalt Carbonate
3. Yellow Ochre
4. Red Iron Oxide
5. Chrome Oxide
6. Zinc Oxide
7. Zircopax
8. Tin Oxide
9. Rutile
10. Copper Carbonate
11. Illmenite
12. Vanadium Pentoxide

These colorants or measured out in the following percentages
The tile must be identified by the glaze and the percentage of colorant. Example

CoO2 is Cobalt oxide
The bottom of the tile should be marked as follows for example

M .25% CoO2 M .5% CoO2 M 1.% CoO2 M 2.5% CoO2 M 5.% CoO2 This is read as Matt glaze .5 percent. cobalt ox Ceramic Chemistry Professor Apodaca Research Art 4391

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1. .25
2. .5
3. 1.
4. 2.5
5. 5.0

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M .25% CoO2 M .5% CoO2 M 1.% CoO2 M 2.5% CoO2 M 5.% CoO2 This is read as Matt glaze .5 percent.cobalt ox

The percentages are added to the base 100 gram batches. The colored glaze is then applied to the tile and fired.

Taking the glaze with the 2.5 concentration create a cross color glaze chart.
Course Syllabus Statement on Required Use of Masks/Facial Coverings by Students in Class At Angelo State University

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