

**College of San Mateo
Official Course Outline**

1. **COURSE ID:** ART 417 **TITLE:** Ceramic Glazing Techniques
Units: 3.0 units **Hours/Semester:** 32.0-36.0 Lecture hours; 48.0-54.0 Lab hours; 64.0-72.0 Homework hours; 144.0-162.0 Total Student Learning hours
Method of Grading: Grade Option (Letter Grade or Pass/No Pass)
Prerequisite: ART 412

2. **COURSE DESIGNATION:**
Degree Credit
Transfer credit: CSU; UC

3. **COURSE DESCRIPTIONS:**
Catalog Description:

Advanced glazing techniques including special glazes, glaze composition, and multi-firing techniques. Ceramic projects with emphasis on glaze effects. Extra materials may be required.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**

Upon successful completion of this course, a student will meet the following outcomes:

1. Demonstrate an understanding of glaze principles through glaze tests, which requires understanding of glaze ingredients, material safety, glaze formulas, glaze mixing and testing processes.
2. Differentiate among different types of kilns, firing temperatures and atmospheres that affect ceramic glaze results.
3. Evaluate ceramic artworks in group, individual, and written contexts using relevant critique formats, concepts and terminology.
4. Examine historical and contemporary developments, trends, materials, and approaches to glaze surfaces in ceramics.
5. Demonstrate safe handling and use of glaze materials, studio equipment, tools, and supplies.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

Upon successful completion of this course, a student will be able to:

1. Formulate, calculate, and test ceramic glazes for various kiln atmospheres.
2. Design and construct ceramic artworks with emphasis on surface design and glaze techniques.
3. Examine historical and contemporary developments, trends, materials, and approaches to glaze surfaces in ceramics.
4. Assess and critique ceramic artworks in group, individual, and written contexts using relevant concepts and terminology.
5. Learn to safely handle and use all studio equipment, tools, and materials.

6. **COURSE CONTENT:**

Lecture Content:

1. Nature of glaze: purpose, uses, and physical properties. Glazes such as lowfire, midfire, highfire, reduction, and oxidation will be explored. Students will experiment with the composition and properties of various clay bodies. Firing techniques such as low fire, midfire, high fire, pit fire, and salt firings will be introduced.
2. Safety: Proper handling of materials, tools, equipment and firings.
3. Materials: Mixing and testing various raw materials used to make clay and glaze.
4. Testing: Mixing techniques will be explained and utilized.
5. Formulation: Students will mix and test compositions they formulate.
6. Evaluation: Students will evaluate glazes after firing.
7. Application: application techniques will be discussed and utilized. Spraying, air brushing, dipping, brushing, and pouring will be introduced.

Lab Content:

1. A. Visual problem-solving exercises that develop ceramic work and require exploration and manipulation of the materials used to create ceramic works.
B. Studio projects that explore the elements and organizing principles of ceramics, including but not limited to construction methods such as pinch, coil, soft slab, hard slab, modeling, carving, and wheel work.
C. Development of skills and processes using a variety of surface and firing techniques appropriate to an intermediate/advance study in ceramics, which may include but are not limited to slips, underglazes, terra sigillata, glaze, burnishing, decals, inlay, majolica, in various firing atmospheres and temperatures.

- D. Safe use of tools and specialized equipment.
- E. Critical evaluation and critique of class projects.

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Lab
- C. Activity
- D. Critique
- E. Discussion
- F. Experiments
- G. Individualized Instruction
- H. Observation and Demonstration

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Example assignment: triaxial glaze test.

After studying the possible firings, surfaces and uses of glaze, students will choose a formula to create the desired effect at the cone desired. The student then weighs out glaze ingredients and distributes them into 16 samples. Precise amounts of test ingredients are added to each sample in a predetermined sequence. The test is fired in a computer controlled kiln. The test is evaluated and the best results are used to formulate the next batch to be fired. The same samples can also be used to glaze multiple samples each to be fired in different atmosphere such as reduction or oxidation, or at different heat rise or endpoint. The procedure is refined and repeated until the desired effect is achieved, the student then writes a report into a data base and turns in the test samples.

Reading Assignments:

Reading assignments are selected from the textbook and from online sources.

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Work
- C. Exams/Tests
- D. Lab Activities
- E. Projects
- F. Research Projects

10. REPRESENTATIVE TEXT(S):

Other:

- A. Students use the internet for glaze formula and ongoing research in the field. The written assignment is also posted online.

Origination Date: October 2023

Curriculum Committee Approval Date: January 2024

Effective Term: Fall 2024

Course Originator: Jeanne Ichimura