

**College of San Mateo**  
**Official Course Outline**

1. **COURSE ID:** ART 417    **TITLE:** Ceramics Glaze

**Units:** 3.0 units    **Hours/Semester:** 24.0-27.0 Lecture hours; 72.0-81.0 Lab hours; and 48.0-54.0 Homework 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 with emphasis on glaze application and formulation. Various techniques such as sgraffito mishima and airbrushing will be explored. Glazes will be formulated and tested. Students will need to create clay works. These works will be used as objects to be glazed. A materials fee in the amount shown in the Schedule of Classes is payable upon registration.

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

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

1. Articulate, orally and/or in writing, interpretations of the ceramic surface viewed as an alternative method of communication, principally as expressions of self, personal observations and perceptions, and other artistic objectives.
2. Complete works by conceptualizing, formulating and analyze strategies to manifest ideas into intermediate level artworks in ceramic.
3. Formulate, calculate and test a ceramics glaze.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

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

1. Apply a combination of glazes and surface techniques at an intermediate level to create desired aesthetic styles, design, and content.
2. Demonstrate an understanding of glaze principles through glaze tests, which requires understanding of glaze ingredients, material safety, glaze formulas, glaze mixing and testing processes.
3. Better differentiate among different types of kilns, firing temperatures and firing methods that affect the ceramic glaze results.
4. Assess and critique ceramics in group, individual, and written contexts using relevant critique formats, concepts and terminology.
5. Further examine and describe historical and contemporary developments, trends, materials, and approaches in ceramics.
6. Safely handle and use all studio equipment, tools, and materials.

6. **COURSE CONTENT:**

**Lecture Content:**

1. Nature of glaze and glaze: their purpose uses and physical properties. Glazes such as Crystalline, low, high, reduction and oxidation will be explored in addition to the composition and properties of various clay bodies. Firing techniques such as Raku, low fire, high fire, pit fire, crystalline and salt firings will be practiced.
2. Safety: The proper handling of the materials, tools, equipment and firings.
3. Composition: the various chemicals used to make clay and glaze, and how much to use, will be explored.
4. Testing: various techniques of testing will be explained and utilized.
5. Formulation: hands on, students will explore and test compositions they formulate.
6. Evaluation and use: the student will evaluate and use their glazes.
7. Application: application techniques will be discussed and utilized, such as spraying, air brushing, fuming, dipping, brushing pouring etc

**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, undeglazes, terra sigilata, 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. Critique
- D. Discussion
- E. Experiments
- F. Individualized Instruction
- G. Observation and Demonstration

#### 8. REPRESENTATIVE ASSIGNMENTS

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

##### **Writing Assignments:**

Example of specific example: triaxial glaze test.

Student after studying the possible firings, surfaces and uses of glaze, select for example Crystalline glazes. A formula will be formulated to create the desired effect at the cone desired. The student then weighs out the ingredients and distributes them into 16 samples a precise amount 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 up 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. Lab Activities
- D. Projects
- E. Research Projects

#### 10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Creber, Diane . *Crystalline Glazes* , ed. University of Pennsylvania Press, 2005
- B. Branfman, Steven. *Mastering Raku: Making Ware*, ed. New York: Lark Books, 2012

Possible periodicals include:

- A. . *Ceramics Monthly*, Volume 2015

Possible software includes:

- A. Filemaker Pro. Filemaker inc, 12 ed.

Filemaker is a relational data base. The software is accessible to the student on a school computer. The student may use the data for research and reference. The students must also input the results of their experiments into the data base.

Other:

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

**Effective Term:** Fall 2021  
**Course Originator:** Rory Nakata