

**MSFT Application Title:**

1) Ceramics Glaze Laboratory & Kiln Room safety upgrades & 2) Sculpture area needs

MSFT#000849

**Applicant First Name:**

Liz

**Applicant Last Name:**

King

**Chair, Director or Supervisor Email:**

Lizabeth King - liz.king@csuci.edu

**Dean, AVP or VP Email :**

Vandana Kohli - vandana.kohli@csuci.edu

**Applicant Department:**

ART

**Email Address:**

liz.king@csuci.edu

**Phone Number:**

(805) 612-1366

**Who is the Staff Support for Project/Activity?:**

Hilda Ocampo, Ivan Grooms, Kenji Webb

**Staff Support email:**

hilda.ocampo@csuci.edu, ivan.grooms@csuci.edu, kenji.webb@csuci.edu

**Submission Date:**

Sunday, March 14, 2021 at 11:23 am

**Proposal Title:**

1)Ceramics Glaze Laboratory & Kiln Room safety upgrades & 2)Sculpture area needs

**Brief Project Description:**

**PROJECT 1:** Art Dept. CERAMICS Area Glaze Laboratory and Electric Kiln Room safety upgrade: Trinity Hall rooms 1715, 1716, & 1717

**PROJECT 2:** Art Dept. SCULPTURE, 3D Printer and sculpture storage cart/cabinet

**PROJECT 1:** Art Dept. CERAMICS Area Glaze Laboratory and Electric Kiln Room safety upgrade: Trinity Hall rooms 1715, 1716, & 1717

The Art Department is asking for MSFT funds to address 2 projects. First are the existing safety concerns surrounding the needed renovation of three rooms in Trinity Hall—adjacent to Topanga Hall, that have been dedicated to Art Department Ceramics area usage. Secondly, the sculpture area needs replacement machinery - a 3D printer plus a storage cart/cabinet. These upgrades/improvements will enhance the learning environment for any students who take courses in the areas of Ceramics and Sculpture.

In the Ceramics area, we are asking for much-needed funds to transform three hospital-era rooms into a safe glaze laboratory, which include a glaze storage and application room, and an electric kiln room for the Ceramics and Sculpture areas of the Art Department. It is most important that these spaces provide a safe working environment for student, faculty, and staff usage. Currently, these dedicated spaces are where glaze materials are stored. Previous to fall 2017, this is where glaze formulation occurred outside of the University's oversight. Upon Art Professor Marianne McGrath's arrival as a full-time professor of Ceramics in the fall of 2017, she immediately discovered the unsafe condition of these rooms and

appropriately declared them inoperable due to overwhelming health and safety issues. In the summer of 2018, she began working with Peer Gerber, now former Director of CSUCI's Environmental Health and Safety Dept. and staff to create a plan to create a safe and functioning laboratory and working space for our students. These instructional spaces would be created in rooms 1715, 1716, & 1717 in Trinity Hall.

A ceramics glaze laboratory is a mandatory space and integral to the practice of ceramics. The requested upgrades and needed improvements will enhance student's learning environment. The mixing of glazes is required and expected knowledge of any ceramicist at the undergraduate and graduate level. The fact that we do not have this capability currently at CSUCI is very unfortunate and hinders our students who want to go on to graduate study in ceramics. The glaze laboratory rooms are where ceramic glazes and other materials used for surface completion with the medium of clay are formulated and made. Ceramic glazes are comprised primarily of silica, often contain heavy metals such as cobalt and chrome, and other elements used as opacifiers and fluxes that form the glass surface on fired ware when matured through heat in a kiln. Silica and other raw materials used in the creation of glazes are in a powdered form until mixed into a liquid suspension to be applied to a ceramic surface. These raw materials require specific proper storage conditions, and safe ventilation systems are necessary in the lab to allow for the safe handling and mixing of these substances during the glaze formulation process.

The proposed glaze lab would be comprised of two separate spaces: one for the mixing of glazes and for the storage of raw glaze materials, and a second space for the application of glazes by students, where mixed glazes are stored in a liquid suspension. (The current storage of glazes and the application of glazes by students occurs in the actual ceramics classroom in Topanga Hall. This is addressed in more detail below.)

Currently, students are unable to access these spaces due to the lack of ventilation and other safety features in the lab. Glaze chemistry is an imperative aspect of the study of our medium, and students receiving a BA degree in ceramics complete at least 1 or 2 semesters of glaze chemistry courses before graduation. Because they are currently unable to do so on our campus, Professor McGrath has arranged for her students who need access to a safe glaze laboratory to complete their education before graduate school or professional artistic practice to take a 3-unit glaze chemistry course at Ventura College. Professor McGrath has relayed that she has heard first hand from potential ceramics students that do not choose our campus but instead have decided to attend other regional CSU campuses because of the unfortunate lack of safe and functional laboratory spaces.

The third room in Trinity Hall would be dedicated to the Department's three electric kilns which currently reside in the actual ceramics classroom space in Topanga Hall, room 1994. Of these three kilns, only one currently has the proper ventilation system to be fired safely in the classroom. The other two kilns need to be timed to reach maturity outside of class time. Also housed within the classroom space are the glaze storage and application areas for the Department. Professor McGrath states: "In my 15 years in higher education, and in the four previous campus where I have taught, this is my first experience of these three distinct spaces existing in one room. It is difficult to manage and maintain, and takes up valuable classroom spaces for the 80+ students that use this space each semester."

**PROJECT 2:** A replacement 3D printer is needed for old (10 years+) non-working 3D printers, and a request for a Sculpture storage cart/cabinet for Sculpture and jewelry making supplies. Further explanation/description provided in Project/Activity Budget Detail.

## **Amount of MSFT Funding Requested:**

**\$88,189.40**

**Project/Activity Budget Detail:**

**PROJECT 1:** Art Dept. CERAMICS Area Glaze Laboratory and Electric Kiln Room safety upgrade: Trinity Hall rooms 1715, 1716, & 1717

**PROJECT 2:** Art Dept. SCULPTURE, 3D Printer and sculpture storage cart/ cabinets

**PROJECT 1: CERAMICS: ACTIVITY BUDGET DETAIL**

Please refer to the addition documentation attached to this application and the specific sections of the budget sheet for the breakdown of construction and equipment costs/per room. *CSUCI Facilities Services has provided the breakdown of costs in their budget. Please see the budget worksheet for extra information and our estimation of the cost breakdown.*

The glaze laboratory is the area that is in need of the most intensive work. The space needs to be upgraded to safely store raw ceramic materials, and to be safe and acceptable for student and staff/faculty use while handling glaze materials and mixing glazes. A laboratory needs to be created where individuals working in the space need to only be wearing a N95 facemask as PPE (personal protective equipment) to be safe. The most efficient and cost-effective way is the installation of a permanent infrastructure that can house ventilation units. Professor McGrath has been told that no permanent infrastructure of any kind can be installed in these spaces. However, after extensive research, the former head of Environmental Health and Safety, Peer Gerber and other key administrators in the EH&S office of have decided that after the space is brought up to code, plus adding water and electrical elements, we can purchase self-contained, free-standing ventilation units for the glaze lab space. Once installed, these units will require an air-quality test by a licensed contractor to deem the space suitable for student use.

For the prepared glaze storage and application room, hardly any renovation is needed. After minor repairs--peeling paint and small cracks, the purchase of two work tables is all that is needed to make this space functional and safe for use by students and faculty/staff.

For the electric kiln room, after similar minor repairs as listed above, the only upgrades needed are electrical upgrades to accommodate three electric kilns and ventilation systems.

**Benefits to our students and campus**

The creation of dedicated safe laboratories and functional learning spaces will be an invaluable addition to our department. They will enrich future student research by providing a laboratory to conduct their research, which is offered at just about every single institution of higher learning in California. They will directly benefit the 200+ students enrolled in ceramics and sculpture courses each year (ART 207-Ceramics, ART 318-Three-Dimensional Art: Ceramics, ART 329-Ceramics Theory and Process, ART 421-Adv Artistic Problems: 3D), and will undoubtedly attract more students. Most importantly, it will allow our current students a safe environment to create in.

**PROJECT ACTIVITY/BUDGET**

Please see the attached detailed budget. A summary of the budget lines items are as follows

- Room updating (CSUCI Facilities)
- Glaze room equipment
- Kiln room equipment
- Glaze storage and application room equipment

**PROJECT ASSESSMENT**

The impact of these new learning and research spaces will be evident immediately and directly in the creative work of our students. The new spaces will result in curriculum shifts that will embrace and employ the new research spaces for the students. This dedicated learning space will allow our students to tap into the full potential of this medium while researching historical and conceptual practices that are currently unavailable to them.

Beyond the glaze laboratory, the two additional spaces will also greatly contribute to improving the learning environment for our students. The glaze storage area will provide safe storage and access for studios glazes and for the application of these glazes. The allocation of this space will open up approximately 100 square feet of classroom space that currently houses the glaze storage and application area in Topanga Hall room 1994. The creation of the electric kiln room in Trinity Hall will allow the kilns to be properly ventilated and secured when in use, and will also open up an approximate additional 60 square feet of classroom workspace.

### RECURRING COSTS

The only foreseeable recurring costs would be minimal. These costs would include filter replacements for the ventilation units, and general upkeep and routine maintenance for the kilns.

### **PROJECT 2: Art Dept. SCULPTURE, 3D Printer and sculpture storage cart/ cabinets**

Location: Topanga Hall 1950 and Topanga Hall outdoor sculpture yard

#### **1. 3-D printer (High Performance Selective Laser Sintering):**

A replacement for the very old (10+ years) first generation 3-D printers that no longer are in working order after years of usage in the Art Department. This printer for the prototyping of 3D models visualized using 3D software. The printer will be used in our Sculpture, Ceramics 3D Computer Animation and Studio Art courses to create 3-dimensional parts and models D models from computer-designed models by successively adding specialized material layer by layer until physical part is created.

Model: Fuse 1, 3-D printer: <https://formlabs.com/3d-printers/fuse-1/>

#### **4. Storage cart:**

For jewelry making & jewelry supply storage (taught within our Sculpture courses). This replaces old hospital tables that are currently cluttered and have no storage capabilities. This will allow the proper and safe storage of sculpture/jewelry-making materials and supplies (subject to rusting) that are currently unprotected. [Lista Storage Cabinet/Cart](#)