Upper Division or Graduate Student Research Position for Living Rammed-Earth Prototyping

NRES or Soil Science Student Scholars sought for 1.5 year technology transfer research project. Upper Division Undergrads or Graduate Students must have interest in developing and testing new rammed earth envelope technologies that incorporate living ecosystem service provisioning and thermal performance. Work will require 10 hours/week and will include:

- Engaging as an active team member with an Architecture Faculty and an Upper-Division student from Architecture or Landscape Architecture to conduct original research
- Soil testing
- Researching scientific peer-reviewed data related to concrete/soil substrates, habitat creation, applicable ecosystem service provisioning, and micro-climactic thermal performance
- Developing 3-D digital and physical models/components of habitat forms/substrates that may be embedded, cast, or carved out of rammed-earth walls
- Contributing to the design, building, installation, and testing performative rammed-[living]-earth prototype envelope assemblies on campus [heavy lifting and intense physical work are required for building/installation]
- Overseeing irrigation [potentially fertilization], maintenance, and precise data collection/analysis from embedded data-loggers, measuring physical weathering, and other ecological field data collection techniques such as organism sampling, species richness quantification, growth measurements, etc.
- Preparing Technology Transfer type report [visuals and text] of finalized prototype, its performance, and potential for industrial fabrication

Preferred skills/ experience include: upper level soils, fertilizers and botany coursework, scientific data collection methods and/or experience, rammed earth fabrication, background working with HOBOs/weather stations, enjoy getting “hands dirty” and making/testing things.

Pay is commensurate with experience.

To arrange an interview, please contact Meredith Sattler at sattler@calpoly.edu.