# 8th Annual CSUF Geological Science Research Day

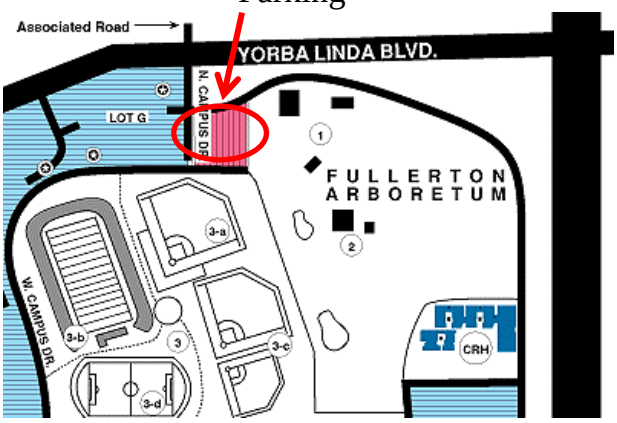
## *Friday April 26th 2017 3-6pm at the Fullerton Arboretum*

*Food – Drinks – Research – Professional Contacts – Prizes!*

*Questions? Contact W. Richard Laton (wlaton@fullerton.edu)*

## Location (33.888157, -117.884310)

Parking




Fullerton Arboretum

The Arboretum is located at 1900 Associated Rd. Fullerton, CA 92831.

Parking is FREE.

## Submission Categories

### Undergraduate Proposal

Appropriate for students engaged in their 1st or 2nd unit of GEOL 498 depending on their progress. Presentations should summarize their thesis proposal, with emphasis on rationale, hypothesis or research question, and the proposed methodology.

### Undergraduate Thesis

Appropriate for students engaged in their 2nd or 3rd unit of GEOL 498 depending on their progress. Presentations should emphasis the rationale of study, hypothesis or research question, utilized methodology, results, and a discussion of conclusions.

### Graduate Proposal

Appropriate for graduate students engaged in research at the proposal stage. Presentations should summarize their proposal, with emphasis on rationale, hypothesis or research question, and the proposed methodology.

### Graduate Thesis

Appropriate for graduate students engaged in research at the results stage. Presentations should emphasis the rationale of study, hypothesis or research question, utilized methodology, results, and a discussion of conclusions – even if only preliminary.

# Abstract Formatting Instructions

Format abstracts to US Letter page-size with 1 inch (2.5 cm) margins on all sides. No more than 2 figures are permitted per abstract and must be either black and white or grayscale images embedded into the document as "device independent bitmap images". Use 12 point Times New Roman for all fonts and single line spacing for paragraphs. Abstract word limit is 400 words, including figures and/or references.

**Submit abstracts electronically to *Richard Laton (wlaton@fullerton.edu)* MS Word format (.doc or .docx are both acceptable, but no PDF's please) no later than Friday April 21st saved with the file name "BSthesis_LastName", "BSproposal_LastName", "MSthesis_LastName", or "MSproposal_LastName" depending on your submission category.**

Late abstracts will not be included in the printed abstract volume, so please submit this on time!

# Example Abstract – *Please use this as a template*

## Last Glacial Maximum Paleoclimate Reconstruction Using Sediments from Lake Elsinore, California

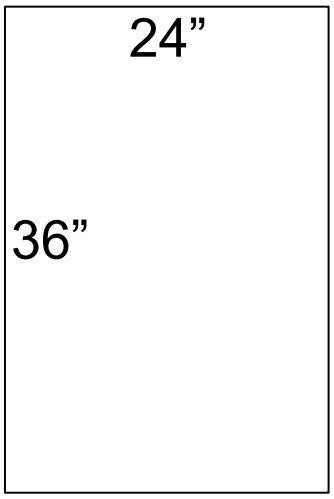
Christine Hiner

Faculty Advisor: Professor Matthew Kirby

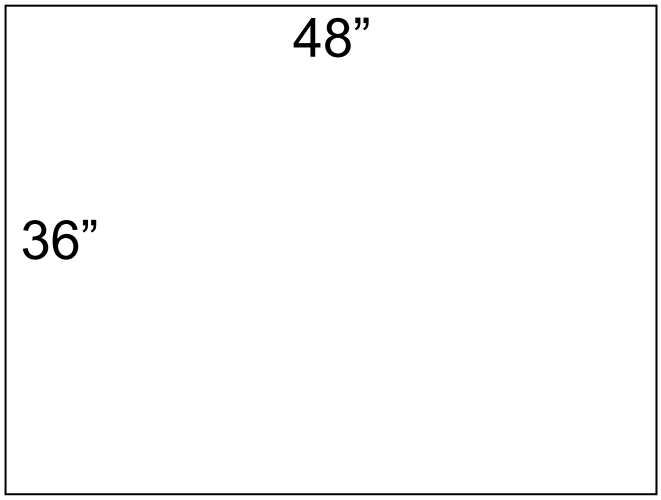
This study will use a sediment core from the deepest portion of Lake Elsinore, located in Riverside County, California, in order to reconstruct the climate of the Last Glacial Maximum (LGM), approximately 18,000 to 22,000 calendar years before present (cy BP). Research on the past climate of southern California is significant because of the perpetual water crisis the over-populated region faces. In order to understand future limitations on water resources, it is essential to understand prior climatic cycles of southern California. Lake Elsinore is significant in understanding prior climatic cycles because it is one of the few natural, permanent lakes in southern California with sediments that faithfully record changes in precipitation amount. Perhaps most significant is the fact Lake Elsinore is the only known high-resolution, continuous, terrestrial record of the LGM in the region. Through reconstructing the first terrestrial LGM record from southern California, this study seeks to identify what climatic forcings (e.g. sea surface temperature) explains this record as well as how the new Lake Elsinore results compare to existing data, especially from the north Pacific Ocean? The Elsinore LGM reconstruction will be accomplished using a series of sediment analyses including: splitting and visually describing the cores, magnetic susceptibility, LOI 550°C and 950°C, and grain size analysis. Radiocarbon dating of discrete organic matter will serve as the age control. It is hypothesized that the Last Glacial Maximum terrestrial climate in southern California was relatively stable and characterized by a deep, permanent lake.

# Poster Formatting Instructions

Proposal Category Poster
Maximum Size:




Thesis Category Poster
Maximum Size:




Students should work closely with their thesis advisors to develop a poster that presents their research proposal or thesis findings effectively. Please coordinate with Matt Wilken (MH-264F) to schedule poster printing. Students are responsible for bringing their posters to the Research Day event, where they will hang them on poster display tripods for presentation and evaluation. Please read the “Poster evaluation form” at end of this document to see how your poster will be evaluated.

If you have never made a scientific poster before, I suggest you print out the rubric and walk around the 2nd and 3rd floors of McCarthy Hall to look at other posters. There are also many resources on the web to help you. For example:

http://serc.carleton.edu/NAGTWorkshops/assess/poster.html

http://serc.carleton.edu/files/sp/library/communications_curricula/examples/tip_sheet_effective_poster_1257184940.pdf

**Evaluation of Scientific Poster Form (completed by faculty and/or geology professionals)**

POSTER TITLE: _____

PRESENTER: _____

| Check the appropriate category | | | |
|---|---|---|---|
| Undergraduate Proposal | | Graduate Proposal | |
| Undergraduate Thesis | | Graduate Thesis | |

Use these criteria below to evaluate the poster presentation. Circle only 1 number. 1 = strongly disagree; 3=neutral; 5=strongly agree.

| CRITERIA | SCORE (circle) |
|---|---|
| Does the poster present a hypothesis-driven project? | Yes 25<br>No 0 |
| The poster format/layout attracts viewer's attention. | 1 2 3 4 5 |
| Words are easy to read from an appropriate distance (3-5 feet). | 1 2 3 4 5 |
| Poster is well-organized and easy to follow. | 1 2 3 4 5 |
| Graphics and other visuals are of high quality and enhance presentation. | 1 2 3 4 5 |
| The poster is neat and appealing to look at. | 1 2 3 4 5 |
| Content is clear and easy to understand. | 1 2 3 4 5 |
| Purpose of study (or questions being asked) is (are) stated clearly. | 1 2 3 4 5 |
| I understand why someone might be interested in the results of this study. | 1 2 3 4 5 |
| The geologic setting of the sample site is presented clearly | 1 2 3 4 5 |
| There is enough detail about methods for me to investigate a sample of my own and acquire comparable results. | 1 2 3 4 5 |
| The findings of the study are appropriate and reasonable. | 1 2 3 4 5 |
| Poster is free of unnecessary/distracting detail, sarcasm, complaining. | 1 2 3 4 5 |
| Conclusions are stated clearly. | 1 2 3 4 5 |
| Presenter's response to questions demonstrated knowledge of subject matter and project. | 1 2 3 4 5 |
| Overall, this was an outstanding poster presentation. | 1 2 3 4 5 |
| Other comments | |
| SCORE | /100 |