

*“Justin is always extremely helpful. He is great at explaining difficult concepts (the analogies he uses always hit the mark). His enthusiasm for geology and his solid understanding of his discipline make him a great asset to this department.”*

-- Course evaluation from an Igneous Petrology student, UCLA Spring 2001

I want to teach in an academic setting where students share my passion for learning. Enthusiasm, interest, and a collaborative environment are paramount to me; I seek to join a Faculty and department that share these values. My teaching philosophy places emphasis on each student's learning and embraces independent, critical, and creative thinking—skills that I honed while attending Macalester College. The success of my teaching can be seen by my student evaluations while in graduate school. Despite the fact that my students often considered me an academically “demanding” graduate student instructor, at UCLA my students rated me above 8 on a scale of 9 for five classes that I taught in 2000-2004. A rating that earned me recognition each year by my department. While a postdoc at UC Berkeley I have sought out opportunities to teach, both in the classroom and in the field. I am presently co-teaching a graduate seminar on Meteorites and the Solar System. This class has been so popular that in addition to students registered for the class, other graduate students, fellow postdocs, and staff and faculty from the departments of Earth and Planetary Science, Astronomy, the Space Science Laboratory, and the Earth Science Division of LBNL fill the room weekly. The highlight of my recent field trips was last Spring's trip to Owens Valley, eastern California, which I was asked to co-lead by the Volcanological Society of Sacramento.

I am excited about teaching and mentoring at the graduate and undergraduate levels. I will actively recruit students who share my keen enthusiasm for research endeavors in isotope geochemistry, geochronology, petrology, volcanology, and cosmochemistry. In addition to teaching courses that encompass these topics I would be interested in teaching graduate-level seminars covering timely subtopics within these subjects in greater depth. Given strong student interest I can envision leading field courses on the essential methods for volcanology and petrology. My vision of the ideal graduate student experience is the following: (1) discussing and identifying current problems in one (or more) of these fields, (2) developing the analytical skills needed to obtain useful geochemical data, (3) understanding how to reliably describe new experimental results and evaluate their uncertainties, and (4) publishing these results and their implications. As a graduate student advisor, I will support students in their individual research and goals. Likewise, in the undergraduate setting, I recognize that students have different learning styles and interests. Some students excel in the lecture setting, while others perform better after working more autonomously on projects. In my teaching, I utilize a variety of learning environments in order to maximize the academic experience for all of my students.

When teaching undergraduates I believe that my strengths include my passion for learning, patience, and broad expertise. I am open to teaching a variety of introductory subjects and would look to my new colleagues to help identify which of these would be most useful for the department. I feel strongly that research be accessible to my undergraduate students. Through instruction, I intend to use my areas of expertise to illustrate that geochemical concepts are discovered through research and that aspects of their course work can be applied outside of the classroom. Moreover, I plan to involve interested undergraduate students in independent research. In addition to basic laboratory research methods I expect that this research will include

integration of isotopic investigations with petrologic and geochemical studies of primitive and differentiated meteorites, as well as, rocks from terrestrial magma systems.

I attempt to integrate the broader picture into the courses that I teach. I anticipate that many of my future undergraduate students, even those who major in the earth and planetary sciences may not become “professional” scientists. I view the education of these students as being just as important as the future scientists, wherein they will become members of our society who make critical decisions regarding the future of science, space exploration, and management of our natural environment and resources.

As I teach a diverse group, both majors and non-majors, graduate students and undergraduate students, I hope to cultivate their appreciation of how the physical world around them works. At the same time, I hope to provide all individuals with the skills to methodically investigate and resolve problems so that they may achieve personal goals in their chosen career.

### **Additional Student Quotes from my Course Evaluations**

#### Geology, Geophysics, and Space Physics Majors (from Mineralogy- Petrology courses):

*“Justin is extremely knowledgeable and fair to all his students. He has a great sense of humor and I always feel welcome to get help outside of class. His lab exams are ‘to the point’ and I’ve learned a lot from him. Justin is the best TA I’ve had at UCLA.”*

*“Justin was definitely the most caring TA I’ve ever had. He really wanted us to learn. He expanded on every topic and showed intense passion on everything he lectured about. He made you work hard, but he showed how much we were learning thru our assignments”*

*“Justin is knowledgeable, friendly, approachable, and is passionate about student learning.”*

*“It was clear that Justin spent a large amount of his time preparing his presentations and thinking about them. I was particularly impressed with his concern for our learning and availability to the students. All in all, an excellent learning experience for me, one that I will remember fondly.”*

*“Justin is very knowledgeable and helps the students solve the problems in the lab by asking tons of questions to get the students to think about different aspects of the topic.”*

*“I enjoyed the labs a lot. Justin seemed to be very concerned that you understood the ideas, and would go to great length to explain them if you didn’t. He was always accessible outside of class, and would often stop by outside class hours to see who was working on the labs and if there were any quick questions while he was there.”*

#### Non majors (from Oceanography and Major Events in the History of Life courses)

*“Justin communicates very well and encourages student participation (questions, discussion). He also clearly elaborates concepts and is available for extra help when necessary.”*

*“Justin made the course fun and interesting!”*

*“Justin really cares about the students. The first time I took this course I didn’t have any interest at all, but after his section I have a lot more interest in the subject.”*

*Justin was very energized and as such caused people to want to learn the lab material. Not showing up for [lecture] class all quarter I was able to score the mean on the midterm base only on material from lab.”*