

GEO 406LRS: Science Capstone Experience

A class for future teachers

Live Oak Hall 1227

W 2:00 – 4:45pm

Instructor Information

Jozi del Angel

(Graduate Student in Dept. of Geological Sciences)

Office Hours: Monday, 12:30-2:00pm LO 1224

Email: jozi.delangel.48@my.csun.edu

Materials:

Pen or pencil

Composition notebook

A science class about questions

Many science classes are taught as vocabulary classes where you memorize books full of scientific jargon. This is a class that explores practical applications of science and tries to help you ask questions about the world around you. As a practical goal, I want this class to prepare you to teach "future presidents." A president is surrounded by experts and will not need to know all the scientific details, but he or she should know what questions to ask and know enough to comprehend the answers. A president should also know that science is not about knowing all the right answers. True, cutting-edge science raises new questions – ones that we never even knew existed!

A class for future teachers

Teaching is one of the most gratifying professions you can imagine, but it is also serious and challenging work. Teachers often spend more time with their students than many parents, and over a career you might deeply touch over a thousand lives (parent to over a thousand children!). You therefore have the responsibility to be a positive role model. You can't be late (or if you are, you'll be fired). You can't yell every time you get a little frustrated (or if you do, you'll be much less effective). You can't lie (your students will always catch you). In many cases, you can't even go to the bathroom. Teachers are superstars. If you want to be one, now is the time to start practicing these skills of excellence. This class has high expectations for learning and integrity, and low tolerance for excuses.

Team-based learning

Research shows that you can learn more from your peers than you can from professors. To facilitate this learning, you will spend a good portion of the class working in teams. You will work with the same team the entire semester, and you will not be able to choose your team. Since having unprepared teammates can impact your experience, there is a procedure for "firing" a student from your team posted on the Moodle website for our class. In past experience, we rarely need to employ this policy. Almost all required teamwork will be in class, so there is no need to worry about coordinating your schedules.

Special needs

Please let me know how I can accommodate those with special physical or learning needs.

Electronic equipment

Class time is a few short hours a week to devote to focused learning. Save phone calls, text messages, web surfing, and other activities for designated breaks or after class.

Other notes

It is the responsibility of each student in this course to know and follow all written guidance given by the instructor in this class. These policies and schedules are subject to change in the event of extenuating circumstances.

Micro-teaching

LAUSD has abandoned K-6 science textbooks in favor of interactive lessons called FOSS kits. We will dig into these kits and help you prepare to teach using these resources. Three times during this semester you will prepare to teach a micro-lesson to your team of 6 peers. Through these kits, you will master both science content and gain valuable practice in front of a very small, very forgiving "classroom."

Your peers will evaluate your preparation and performance, but you will also evaluate their supportiveness. These peer evaluations comprise a substantial portion of your grade. I will monitor the peer assessments and periodically calibrate them to my own scoring of your work. Please trust that your grade will not turn into a popularity contest with your peers. If I find inconsistencies and unfairness in the scoring system, I will intervene and modify the scoring system. Please see "What is Microteaching? FAQ" and "Team-based learning FAQ" posted on moodle for more information.

Grades

The grading policy in this class gives merit to three general areas:

- Your preparation, as measured by homework assignments and pre-quizzes completed on Moodle.
- Mastery of science content, as measured by summative quizzes conducted at the end of each block of topics
- Growth as a science teacher, as measured by peer evaluations of your micro-teaching.

Grades are calculated on a cumulative points basis based on the categories below. No Extra credit.

<u>Assignment</u>	<u>Assignment points</u>	<u>Category points</u>
2 homework assignments	10 point each	20
4 moodle surveys	5 points each	20
3 post-teaching reflections	20 points each	60
3 post-quizzes	20 points each	60
18 micro-teaching surveys	5 points each	90
3 micro-teaching session evaluations	25/50/100 points	175

Total points

425

Leave days

In this class, you can miss one day, no questions asked and with no penalty. To request a leave day, you must fill out the form on Moodle either before your absence or within 7 days after. After using your leave day, you will receive no credit for days you miss. You may not use a leave day on a day for which you are scheduled to micro-teach. You will receive zero for those days.

Academic dishonesty, copying, cheating

I expect high standards of academic integrity from future teachers so there is a zero-tolerance rule for academic dishonesty in this class. I will refer all cases of academic dishonesty to the VP of Student Affairs' office for arbitration and possible disciplinary action. The first offense will result in, at minimum, the reduction of your final grade by one partial letter grade (A- becomes B+), the second offense will result in an F for the class. It is not worth the risk to cheat or let someone copy your work in this class