

## NGSS 1

### ***What is the NGSS?***

The Next Generation Science Standards (NGSS) were adopted by California in 2013. These new science education standards are "rich in content and practice, arranged in a coherent manner across disciplines and grades to provide all students an internationally benchmarked science education."

### ***What is NGSS 1?***

NGSS 1 is a 9<sup>th</sup> grade integrated, laboratory-based science class. Course content focuses on introductory Chemistry, Biology, and Earth and Space Science concepts that are aligned to the California State Standards for math and English language arts. Students will be actively engaged in the Science and Engineering Practices and the Crosscutting Concepts using real-world, relevant examples pertaining primarily to water's importance to the Earth and living organisms along with nutrient and energy flows.

### ***Why is there a new science course at the high school?***

The new state science standards with significant pedagogical shifts warrant the development of new science courses.

Shifts of the NGSS:

- All standards (Earth and Space, Biology, Chemistry, and Physics) for **all students**.
- Science and Engineering Practices and Crosscutting Concepts receive equal attention and development as the disciplinary core ideas.
- Class content driven by real-world phenomena and application.
- Student-centered instruction.
- The pace of the course is driven by students' ability to make sense of the information.
- Students frequently engage in discussion.
- Aligned to state standards for ELA and math.

### ***Will this course count for UC credit?***

The course description and outline for NGSS 1 has been submitted to the UC's for approval. It is therefore currently listed in the 2016-17 course catalog as "pending UC approval". We fully expect this course to be UC approved as it is aligned to the Next Generation Science Standards for high school and follows the course map included in the NGSS Appendix K found [here](#).

### ***Who should take this course?***

For the 2016-17 school year, incoming freshman have two science course options: NGSS 1 or Honors Biology. **NGSS 1** is an excellent option for all freshman high school students and will help prepare students for the state science assessment which is tentatively scheduled for Spring 2019. This assessment will be given to all 11<sup>th</sup> grade students and will cover all the NGSS high school standards grades 9-11. There is no advantage for a freshman taking honors biology or NGSS 1. Both classes are lab based classes. Honors biology will be more rigorous in terms of academic vocabulary and reading, but will not be more rigorous in terms of concepts

taught. Because the UC's do not give extra weighting or honors credit to freshman or sophomore science courses, neither course will count as extra honors points on a student's transcript. Depending on whether a student qualifies for the Honors Biology, both courses are excellent options for students and the decision is ultimately up to students and their families. Students should choose based on their interest as both courses will prepare them for college, career, and beyond.

### POSSIBLE HIGH SCHOOL SCIENCE PATHWAY

	<b>9<sup>th</sup> GRADE</b>	<b>10<sup>TH</sup> GRADE</b>	<b>11<sup>TH</sup> GRADE</b>
<b>8<sup>th</sup> grade science</b>	<b>NGSS 1</b>	<b>NGSS 2</b>	<b>NGSS 3 &amp; AP Biology</b>
<b>8<sup>th</sup> grade science</b>	<b>Honors Biology</b>	<b>Honors Chemistry</b>	<b>Physics &amp; AP Biology</b>
<b>Honors 8<sup>th</sup> Grade Science</b>	<b>NGSS 1 or Honors Biology</b>	<b>NGSS 2 or Honors Chemistry</b>	<b>NGSS 3 or Physics/ AP Physics &amp; AP Bio</b>