

**Term:** 2017 -2018  
**Title:** Earth Science  
**Instructor:** Aaron Ferguson

**Email:** aaron.ferguson@ouhsd.k12.ca.us  
**Room:** E-114  
**Date and Time:** Monday - Friday

**These policies and schedules are subject to change if unforeseen circumstances arise.**

**Objective:** This instructional program provides students with exploratory experiences related to the natural world including: astronomy; plate tectonics; rocks and minerals; earthquakes; volcanoes; atmosphere, weather patterns, oceanography; career opportunities in the various earth science field.

**Grades:**

Semester 1		Semester 1		Grades	
5 – Exams (50%)	250pts	5 – Exams (50%)	250pts	A	100 - 90%
5 – Quizzes (10%)	50pts	5 – Quizzes (10%)	50pts	B	89 - 80%
10 – Labs (20%)	100pts	10 – Labs (20%)	100pts	C	79 - 70%
20 – Weekly Tasks (20%)	100pts	20 – Weekly Tasks (20%)	100pts	D	69 - 60%
Total	500pts	Total	500pts		

**Exams:**

There will be 5 Exams per semester

- Each Exam will be worth 50pts
- There will be 1 Exam per Module
- Exams will have multiple choice and short answer portions

**Quizzes:**

There will 5 Quizzes per semester

- Each Quiz will be worth 10pts
- There will be 1 Quiz per Module
- Quizzes will have a variety of types of questions

**Labs:**

There will be 10 Labs per semester

- Each Lab will be worth 10pts
- There will be 2 Labs per Module

**Weekly Tasks:**

There will be 20-Weekly Tasks per semester

- Each Weekly Task will be worth 10pts
- Weekly Tasks are due at the end of the week, Friday @ 5pm
- Late Weekly Tasks will not be accepted

**Academic Honesty:**

Students or groups who copy, or allow others to copy their weekly tasks or projects, will **ALL** receive a zero on the assignment. You are expected to work diligently to answer the assigned questions and are encouraged to check with another group or the instructor to be sure your answers are correct.

**Altruism Credit:**

The students of the Academy of Business are consistently encouraged to show acts of altruism. Any student who completes approved and signed community service will be given "Altruism Credit" at the rate of 5 pts per 1 hour of service. (50 pts maximum)

**Weekly Schedule:**

1st Quarter	
8/28 - 9/1	<b>Lecture:</b> Get to Know the Class <b>Lab:</b> Length Lab
9/4 - 9/8	<b>Lecture:</b> <b>Weekly Task:</b> How Big is our Universe; Is there Life out There; Life on Europa
9/11 - 9/15	<b>Lecture:</b> Life Cycle of a Star; Characteristics of a Star <b>Weekly Task:</b> Live and Let Die-agram; HR Diagram <b>Lab:</b> Crater Lab  QUIZ - MODULE 1
9/18 - 9/22	<b>Lecture:</b> Our Solar System <b>Weekly Task:</b> Nebular Model; Solar Map; Solar Structure; Planets; M1 Practice Exam  EXAM - THE COSMOS
9/25 - 9/29	<b>Lecture:</b> Minerals; Mineral Properties <b>Weekly Task:</b> Cosmic Connection to the Elements; Minerals Everywhere <b>Lab:</b> Mineral Identification
10/2 - 10/6	<b>Lecture:</b> Rock Types <b>Weekly Task:</b> Basalt vs. Granite; Gemstones  QUIZ - MODULE 2
10/9 - 10/13	<b>Lecture:</b> Rock Cycle <b>Weekly Task:</b> Rock Cycle <b>Lab:</b> Rock Cycle
10/16 - 10/20	<b>Lecture:</b> Earth's Layers <b>Weekly Task:</b> Layers of the Earth  EXAM - BUILDING EARTH
10/23 - 10/27	<b>Lecture:</b> Continental Drift <b>Weekly Task:</b> Continental Drift <b>Lab:</b> Pangaea
2nd Quarter	
10/30 - 11/3	<b>Lecture:</b> Plate Tectonics <b>Weekly Task:</b> Boundary Types  QUIZ - MODULE 3
11/6 - 11/10	<b>Lecture:</b> Tectonic Movement <b>Weekly Task:</b> The Mantle Moves Us; M3 Practice Exam <b>Lab:</b> Snack Tectonics  EXAM - DYNAMIC EARTH
11/13 - 11/17	<b>Lecture:</b> Earthquakes <b>Weekly Task:</b> Science of EQs, Latitude and Longitude
11/20 - 11/24	THANKSGIVING BREAK

11/27 - 12/1	<b>Lecture:</b> Waves and Location; Measuring and Destruction <b>Weekly Task:</b> Locating Earthquakes <b>Lab:</b> Finding the Epicenter <p style="text-align: right;">QUIZ - MODULE 4</p>
12/4 - 12/8	<b>Lecture:</b> Types of Volcanoes; Other Igneous Forms <b>Weekly Task:</b> Ring of Fire; Locating Volcanos
12/11 - 12/15	<b>Lecture:</b> Factors Affecting Eruption <b>Weekly Task:</b> Melting Temperature of Rocks <b>Lab:</b> Volcanos
12/18 - 12/22	<b>Lecture:</b> Mountain Building; Folds and Faulting <b>Weekly Task:</b> M4 Practice Exam <b>Lab:</b> Fault Types <p style="text-align: right;">EXAM - TECTONIC STRUCTURES</p>
12/25 - 1/5	WINTER BREAK
1/8 - 1/12	<b>Lecture:</b> Weathering <b>Weekly Task:</b> Depositional Environments <b>Lab:</b> Sand Lab
1/15 - 1/19	<b>Lecture:</b> Topographic Maps <b>Weekly Task:</b> Topographic Maps <p style="text-align: right;">QUIZ - MODULE 5</p>
1/22 - 1/26	<b>Weekly Task:</b> M5 Practice Exam <p style="text-align: right;">FINALS WEEK EXAM - SURFACE PROCESSES</p>
3rd Quarter	
1/29 - 2/2	<b>Lecture:</b> Structure of the Atmosphere <b>Weekly Task:</b> Layers of the Atmosphere, Atmosphere <b>Lab:</b> Structure of the Atmosphere
2/5 - 2/9	<b>Lecture:</b> Earth - Sun Relationship; Solar Radiation <b>Weekly Task:</b> Solar Radiation <p style="text-align: right;">QUIZ - MODULE 6</p>
2/12 - 2/16	<b>Lecture:</b> Temperature Controls <b>Weekly Task:</b> Temperature Controls <b>Lab:</b> Heating Land and Sea
2/19 - 2/23	<b>Lecture:</b> Understanding Air Pressure; Pressure Centers and Winds <b>Weekly Task:</b> M6 Practice Exam <p style="text-align: right;">EXAM - ATMOSPHERE AND WIND</p>
2/26 - 3/2	<b>Lecture:</b> World Climates <b>Weekly Task:</b> History of Climate; Global Climate Map <b>Lab:</b> Volcanoes and Climate

3/5 - 3/9	<b>Lecture:</b> Climate Change <b>Weekly Task:</b> Global Warming; The Year Without a Summer <b>Lab:</b> Human Impact <p style="text-align: center;">QUIZ - MODULE 7</p>
3/12 - 3/16	<b>Lecture:</b> Water Cycle <b>Weekly Task:</b> Water Cycle; Rainwater Toilets <b>Lab:</b> Pacifica's Water Budget
3/19 - 3/23	<b>Lecture:</b> Carbon and Nitrogen Cycle <b>Weekly Task:</b> Carbon and Nitrogen Cycle; M7 Practice Exam <p style="text-align: center;">EXAM - OUR CHANGING CLIMATE</p>
3/26 - 3/30	SPRING BREAK
4/2 - 4/6	<b>Lecture:</b> Composition of Seawater <b>Weekly Task:</b> Composition of Seawater
4/9 - 4/13	<b>Lecture:</b> Ocean Productivity; Ocean Circulation <b>Weekly Task:</b> Currents; Ocean Zones <p style="text-align: center;">QUIZ - MODULE 8</p>
4th Quarter	
4/16 - 4/20	<b>Lecture:</b> Tides; Waves <b>Weekly Task:</b> Tidal Patterns; Waves, Wave Diagram <b>Lab:</b> Breaking Waves
4/23 - 4/27	<b>Lecture:</b> Shoreline Processes and Features <b>Weekly Task:</b> M8 Practice Exam <p style="text-align: center;">EXAM - OCEANOGRAPHY</p>
4/30 - 5/4	<b>Lecture:</b> California Hazards; <b>Weekly Task:</b> CA Hazards; CA Geology <b>Lab:</b> CA Hazards
5/7 - 5/11	<b>Lecture:</b> California Resources <b>Weekly Task:</b> CA Resources; <b>Lab:</b> CA Mineral Resources
5/14 - 5/18	<b>Lecture:</b> Water Resources <b>Weekly Task:</b> CA Water <b>Lab:</b> How Big is your Mountain
5/21 - 5/25	<b>Weekly Task:</b> M9 Practice Exam <b>Lab:</b> California Map Project <p style="text-align: center;">EXAM - OUR LOCAL GEOLOGY</p>
5/28 - 6/1	<b>Weekly Task:</b> Career Exploration 1
6/4 - 6/8	<b>Weekly Task:</b> Career Exploration 2
6/11 - 6/15	FINALS WEEK PROJECT DUE - CAREER EXPLORATION