

Geology 21b - San Francisco Geology - Fall 2014

Required orientation:

Saturday, Nov 1, 2014, 9:10 am to 11:30 am, S45

Field trip: BOTH DAYS REQUIRED

Saturday, Nov 15, 2014, 9:10 am to 5 pm (1/2 hour for lunch mid-day)

Saturday, Nov 22, 2014, 9:10 am to 5 pm (1/2 hour for lunch mid-day)

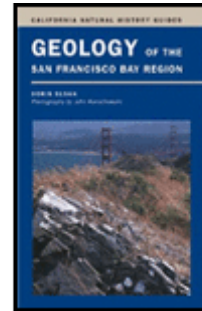
CRN: 76296 (1 unit)

INSTRUCTOR: Katryn Wiese, katryn.wiese@mail.ccsf.edu

Emergency contact day of the trip: *(number given out during orientation)*

SATURDAY NOVEMBER 1st, 2014 - ORIENTATION:

The orientation class is MANDATORY. It meets from **9:10 am to 11:30 am** on Saturday, November 1st in S45. During class, we will review field trip logistics, participate in an interactive lecture on coastal processes, and explore the San Francisco geology visible on campus.



DEADLINES:

- LAST DAY TO ADD, DROP, CHANGE GRADE TO PASS/FAIL:
Saturday, November 1st, 2014
- LAST DAY TO WITHDRAW: Saturday, November 15th, 2014

BOOK: GEOLOGY OF THE SAN FRANCISCO BAY REGION by Doris Sloan

Published Date 2006, ISBN 9780520241268, Publisher CAL-PRINCE

**Be sure you are physically able to participate in this field trip.
We will be hiking up and down hills.**

Possible Class Cancellation:

The class will meet regardless of the weather, so be prepared for all kinds of weather. (Note: in the case of emergency conditions, the class will be postponed until the following Sundays (Sunday, November 16 or Sunday November 23).

Field trip preparations:

Dress in layers - it could be quite cold. Bring these items:

- Sturdy waterproof boots or shoes
- Hat, gloves, Rainjacket and pants (in case really wet) + Umbrella
- Polyester, wool, fleece clothing if at all possible (cotton, if wet, will make you miserably cold).
- Clipboard or hard surface + Pens, pencils.
- Field Book + Handouts
- Lunch and snacks (you're on your own for food and have to have it all with you!)
- Water
- For TOUR: NO flip-flops, sandals, clogs, open shoes, open toe shoes, shorts, short pants, or skirts.

Transportation:

CCSF Faculty are not allowed to drive students on field trips. Each student must be in charge of his or her own transportation. Carpools are recommended, and we will take time during the orientation to help folks make connections necessary for carpools.

GRADING:

Your grade will be determined by the grades you get on the quizzes, assignments, and, for those who want to get an A or B, the grade you receive on a research project you complete prior to the field trip (see Research Paper handout for details). **A=90-100%; B=80-89%; C=70-79%; D=60-69%; F≤60%.**

Workload:

- November 1st
 - Attend full orientation completing in-class activities.
 - Complete introductory class survey and contract by end of class on November 1st.
- November 15th
 - Complete online quiz due before 6 am on Saturday, November 15th.
 - Attend the complete trip. Take good field notes. Participate fully.
 - Using field notes, complete end-of-day quiz at 4:30 pm on Saturday, November 15th.
- November 21st
 - ALL STUDENTS GOING FOR A or B LETTER GRADE: Submit Research project prior to Friday, November 21st at 6 am
- November 22nd
 - Complete online quiz due before 6 am on Saturday, November 15th.
 - Attend the complete trip. Take good field notes. Participate fully.
 - Using field notes, complete end-of-day quiz at 4:30 pm on Saturday, November 15th.

TIPS:

- NO LATE QUIZZES ACCEPTED.
- If you have questions, come seek help in office hours (T/Th 12:30-1:30 pm in S45) or via email.
- If you don't have time to prepare sufficiently, then this class is not for you.

If you choose to take class Pass/No Pass, a Pass represents a C or better average.

Pass/No Pass courses are counted toward graduation and for transfer. In this class, a student must declare to the Office of Admissions and Records the intention to take the course on a Pass/No Pass basis **no later than Saturday, November 1st**. Forms to exercise this option are available from the Office of Admissions and Records, on the class website, and from instructor during orientation. Students may also select "Pass/No Pass" grading option on-line through WebSTARS at <http://www.ccsf.edu>. The "NP" symbol shall be used only in calculating units attempted for probation and dismissal. In the absence of a "Petition for Pass/No Pass," students will be evaluated on a letter-grade basis.

This is a positive attendance class, which means you cannot get credit unless you attend the full class.

10 pts Participation (during all class periods)	10 pts Online quiz due 11/15 at 6 am	10 pts End-of-day quiz due 11/15 at 5 pm	10 pts Online quiz due 11/22 at 5 pm	10 pts End-of-day quiz due 11/22 at 5 pm
30 pts for research project (only for students who plan to complete class for letter grade)				

Student Learning Outcomes:

After successful completion of this class you should be able to:

- Observe and describe the major topographical features found within the city of San Francisco.
- Analyze the physical forces and processes that have shaped these topographical features.
- Collect and analyze rock, sediment, soil, and fossil samples and use them to develop working hypotheses about local geologic processes.
- Evaluate geologic hazards within San Francisco, and identify and evaluate what has been done to minimize their damage.
- Predict on a map places where common geologic hazards are likely to occur.
- Review and evaluate the support data for the geological history of San Francisco.

FIELD TRIP TENTATIVE SCHEDULE:

(TIMES ARE APPROXIMATE and LOCATIONS subject to change due to weather and accessibility)

SATURDAY NOVEMBER 15th, 2014

Tides for Hunters Point

Day	High /Low	Tide Time	Height Feet	Sunrise /Sunset	Moon Rise /Set	Time	% Moon Visible
Sa	15	Low	12:02 AM	1.0	6:50 AM	Rise 12:14 AM	48
	15	High	7:08 AM	5.9	4:58 PM	Set 1:17 PM	
	15	Low	1:21 PM	2.2			
	15	High	6:30 PM	4.8			

9:10-10:10 am – Colma Sand Dunes *JFK Elementary School.*

10:20-12:00 pm – San Bruno Mountain State Park Summit – Erosional Mountain Systems – Hayward and San Andreas Faults -- and the San Bruno Mountain Sandstone Terrane

12-12:30 – *Lunch*

12:45-1:45 pm India Basin Shoreline Park – Mud and Fill and Hunter’s Pt Melange – Serpentinite

2:15 to 4:30 pm – Twin Peaks – Marin Headlands Terrane

4:30 PM – END-OF-DAY QUIZ

SATURDAY NOVEMBER 22, 2014

Tides for Ocean Beach, outer coast

Day	High /Low	Tide Time	Height Feet	Sunrise /Sunset	Moon Rise /Set	Time	% Moon Visible
Sa	22	Low	3:46 AM	2.4	6:58 AM	Rise 7:00 AM	0
	22	High	9:48 AM	6.4	4:55 PM	Set 5:29 PM	
	22	Low	4:41 PM	-0.8			
	22	High	11:35 PM	4.9			

9:10-10:10 am – Coit Tower –Alcatraz Terrane

10:30-11:30 am – Fort Point – Hunters Pt Melange – Serpentinite

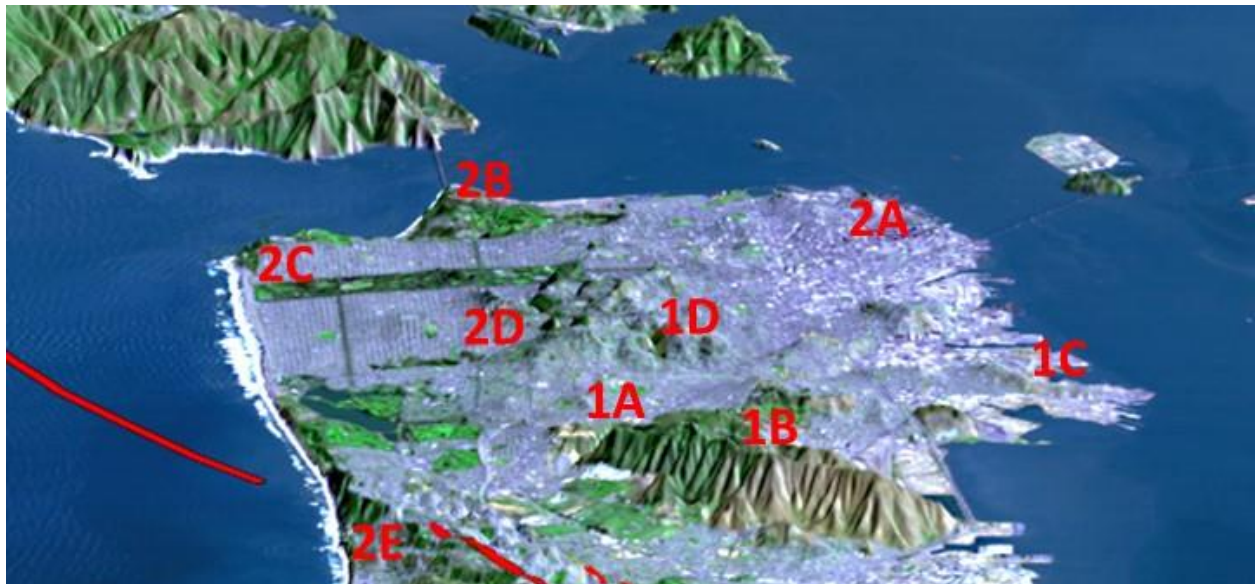
11:45-12:30 – Sutro Baths – San Bruno Mountain Terrane and the Golden Gate

12:30 – 1 pm – *Lunch*

1:15-2 GrandView Park – Sand Dunes and Marin Headlands Terrane

2:15-4:30 pm – Mussel Rock Beach – Sand Dunes and Sedimentary Basins and Fossils

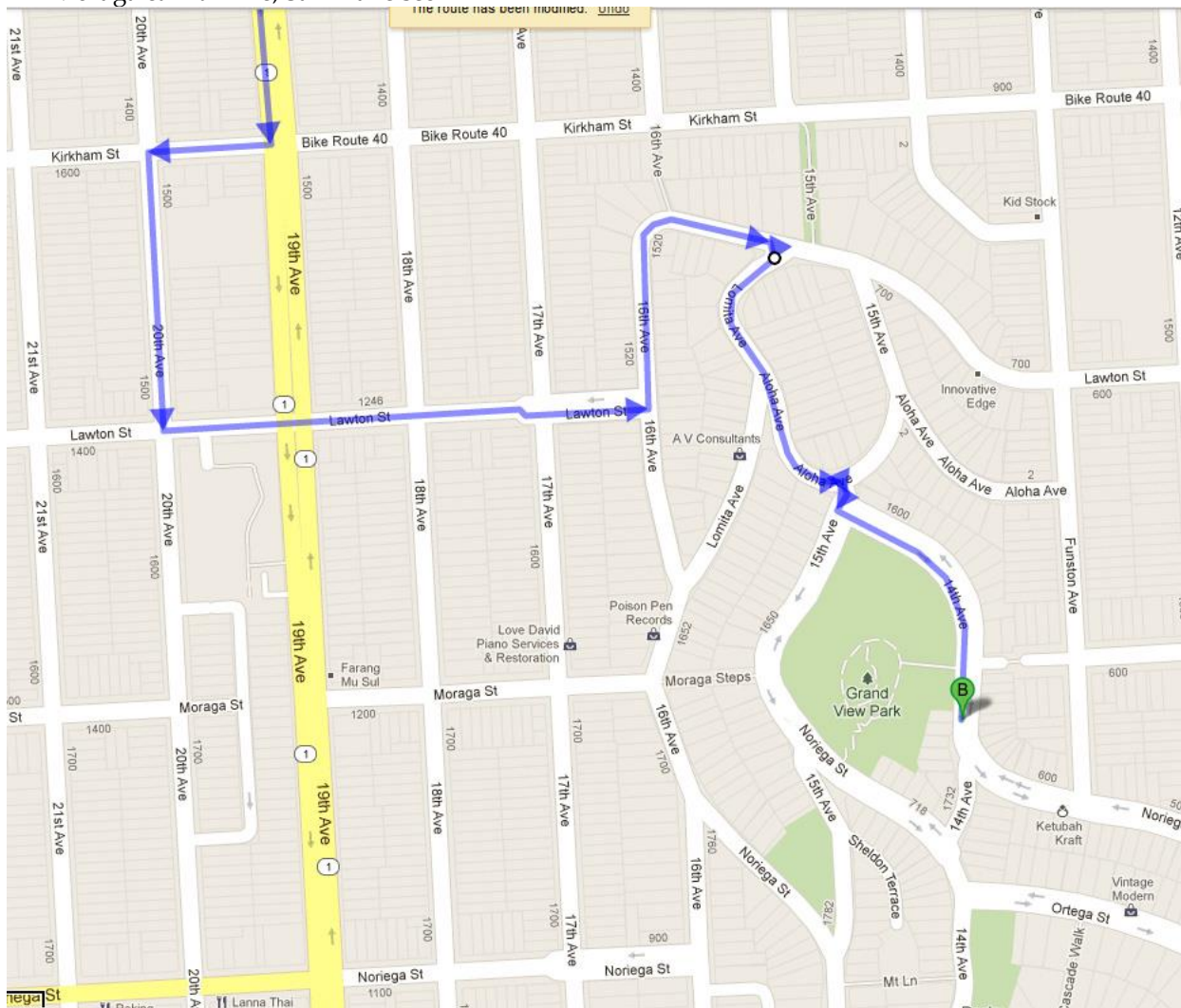
4:30 PM – END-OF-DAY QUIZ



DIRECTIONS:

1. JFK Elementary School – meet at entry to school parking lot.
785 Price Street, Daly City
2. San Bruno Mountain State Park – meet in summit parking lot.
555 Guadalupe Canyon Parkway, Brisbane
(Enter park, off Guadalupe Parkway, and take main road, Radio Road, up the mountain to the end.
Summit parking overlooks airport and SF South Bay.)
3. India Basin Shoreline Park – meet in parking lot that is closest to water.
Hunters Point Blvd & Hawes St, San Francisco
4. Twin Peaks Overlook – meet at overlook (where bathrooms are).
501 Twin Peaks Blvd, San Francisco

1. Coit Tower/Telegraph Hill – meet at top overlook parking lot
1 Telegraph Hill Blvd, San Francisco
2. Fort Point – meet at parking lot immediately under bridge and in front of Armory.
End of Marine Dr, San Francisco
3. Lands End Lookout/Sutro Baths – meet at base of stairs in front of main tunnel.
680 Point Lobos Avenue, San Francisco
4. Grand View Park – meet at staircase on north side of park.
Moraga & 14th Ave, San Francisco



5. Mussel Rock – meet at main parking lot.
North end of Westline Drive, Daly City