



*Series: Discovering Your Educational Community Resources*

## **Amazing Space and Astronomy & More**

### **San Francisco/San Jose Bay Area**

**Downing Planetarium and Space Museum, and the Sam B. Peña Planetarium**

EDUO 9807 1 Semester Credit/Unit

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## **Syllabus**

### **Course Description**

The purpose of this course is to provide teachers with an opportunity to familiarize themselves with the rich science resources in the community. The goal is to help teachers provide a richer science education program for their students. The planetariums and their exhibits are available to the general public including whole class opportunities.

### **Course Objectives:**

1. Teachers will learn what educational programs and other opportunities are available for their students at visiting outstanding educational sites.
2. By participating in the programs at the chosen planetariums and their exhibits, teachers will further their knowledge of science and natural world that can be taken back to the classroom and incorporated into the curriculum.
3. Teachers will gain the knowledge to plan and teach meaningful science lessons and activities for their grade level.
4. Teachers will be able to provide field trip information for parents and staff and plan meaningful fieldtrips that enrich the curriculum of grade level taught.

### **Course Requirements:**

1. Attend one planetarium program from the selection of sites listed. Please check the website for up-to-date information on show titles and programs available, as schedules are subject to change.
2. Write a one-or-more page reflection on your experiences at the planetarium or site visited. Please include:
  - A description of what is available at the site that would be of **interest** to students including the lobby and gift shop.
  - A reflection of the attraction you visited and its relevance to the **curriculum** of your class grade level. Reflect on your experiences, then describe what you observed and found to be interesting during your visit. Explain how you can make this visit relevant to your students.
3. Find web sites for astronomy, and choose two sites that are of interest to you. Describe in detail how you would go about using these sites or information found on them to spark an interest in astronomy in your students. Include the URLs of the sites **OR** visit another site from the list and write a reaction to your visit.
4. Submit a lesson plan for an activity on astronomy education for students at your grade level. Lesson plans/activities should not be copied from other sources such as the Internet. However, web sites of interest to your class should be mentioned and cited. The lesson plan should include:
  - Content, Skills and/or Standards addressed
  - Materials needed
  - Into: Instruction
  - Through: Guided Practice/Activities (Worksheets can be included)
  - Beyond: Closure activity /Assessment
  - Name of your school and district and the grade level you teach
5. Visit the locations at your convenience (you have nine-months to complete this course). Be prepared to take notes. At the completion of each tour, have the Passport Page of the packet stamped and dated by the museum receptionist, or if this is not available attach some form of entrance receipt instead
6. Complete all coursework, including the **Summary and Evaluation Form**.

**\*Note: It is advisable to call ahead for the days/hours that these venues are open to the public**, and for the admission costs as they occasionally change. For some venues, it is also recommended that you **call ahead to request a docent-guided tour**. A camera may be needed to record some sites visited. Evidence as proof of the visit must be attached to the coursework, such as a photograph, a stamp/signature from a docent, a brochure/ticket, etc.

## Written Response Grading Rubric

| <b>Exemplary: Exceeds Expectations = A</b>  | <b>Acceptable: Meets Expectations = B</b>                                | <b>Unacceptable: Needs Improvement, Must be Resubmitted.</b>                 |
|---|--|--|
| Reflective, thoughtful ideas relevant to the assignment are clearly stated.             | Presents some relevant ideas and connections to the assignment.          | Few relevant ideas connected to the assignment, some ideas unclear.          |
| Very well organized   | Is generally well organized  | Shows little organization  |
| Reflective piece covers numerous facts and specific details of the learning experience. | Some facts and specific details of the learning experience are included. | Few or no facts or specific details of the learning experience are included. |
| Free of spelling or grammatical errors.   | Writing contains a few spelling or grammatical errors.                   | Numerous spelling or grammatical errors. Writing difficult to read.          |

### Instructions for coursework submission:

#### Written Assignments

Your coursework should be created in a document that can be emailed directly to the instructor. Coursework should be typed, double-spaced with size 12 font. Reflection write-ups should be one or more pages in length and address every question in the coursework. Pictures and documents may be scanned and posted along with your Word or PDF file of written assignments. Label everything carefully with the assignment number and make sure that your name and email address are easy to locate.  
Visit four sites and submit responses for EACH location.

**IMPORTANT** - Camera images can be very large files. Save the images in lower definition resolution in order to keep document file sizes down for emailing.

For assistance email [jherz@dominicancaonline.com](mailto:jherz@dominicancaonline.com)

**EMAIL your completed documents to the instructor's email listed on the syllabus you are working from.**

### Choose one of the following:

**1. College of San Mateo Planetarium – San Mateo**

1700 W. Hillsdale Blvd.

650-574-6256

Check seasonal hours and pricing at [www.collegeofsanmateo.edu/planetarium](http://www.collegeofsanmateo.edu/planetarium)

- 2. Foothill College Observatory – Los Altos Hills 12345**  
El Monte Rd.  
On the campus of Foothill College  
650-493-4742  
Check seasonal hours and pricing at [www.foothill.edu/ast/fhobs.htm](http://www.foothill.edu/ast/fhobs.htm)
- 3. NASA/Ames Exploration Center – Mountain View**  
Moffett Field  
650-604-6274 or 650-604-6497 Check  
seasonal hours and pricing at  
[www.nasa.gov/centers/ames/home/exploration.html](http://www.nasa.gov/centers/ames/home/exploration.html)
- 4. Fujitsu Planetarium De Anza College - Cupertino**  
21250 Stevens Creek Blvd.  
408-864-8814 or 408-864-8282  
Check seasonal hours and pricing at [www.planetarium.deanza.edu](http://www.planetarium.deanza.edu)
- 5. Rosicrucian Egyptian Museum and Planetarium – San Jose**  
1664 Park Ave., San Jose  
408-947-3636  
Check seasonal hours and pricing at [www.egyptianmuseum.org](http://www.egyptianmuseum.org)
- 6. Lick Observatory – San Jose** Mt. Hamilton Rd.  
408-274-5061 (call between 12:30 -5:00pm)  
Check seasonal hours and pricing at [www.ucolick.org](http://www.ucolick.org)
- 7. Fremont Peak Observatory – San Juan Bautista**  
Fremont State Park, Highway 156, 11 miles south of San Juan Bautista on San Juan Canyon Rd.  
831-623-2465  
Check seasonal hours and pricing at [www.fpoa.net/schedule.html](http://www.fpoa.net/schedule.html)
- 8. J. Frederic Ching Planetarium – Salinas**  
Hartnell College, 156 Homestead Ave., Salinas  
831-755-6800 or 831-755-6700  
Check seasonal hours and pricing at [www.hartnell.edu/planetarium/schedule.html](http://www.hartnell.edu/planetarium/schedule.html)
- 9. Chabot Space Center and Planetarium, Chabot College - Hayward** 25555 Hesperian Blvd.  
Exhibit: advanced tickets online or call 510-336-7373  
Check seasonal hours and pricing at [www.chabotspace.org/visit](http://www.chabotspace.org/visit)

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**Documentation Page**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

This page or one of your making can be used as proof of visit. Photos, stamps, ticket stubs, etc. can be attached, scanned or otherwise converted electronically.



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### **Summary and Evaluation**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ Grade Level: \_\_\_\_\_

Phone & Email: \_\_\_\_\_

Summarize and evaluate your experience visiting and researching this museum regarding its value to an educator.

#### **Optional**

Do you have suggestions that would improve the experience?

Would you recommend this class to other teachers? Why/why not?