Problems in Teaching College Physics Lab A  
PHYS 5381.001

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Office Hours:  
Schedule your appointment at calendly.com/drbeauregard. Available hours:

<table>
<thead>
<tr>
<th>Day</th>
<th>Meeting Time</th>
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</table>
| Monday   | 9:00am – 11:30am  
            1:30pm – 4:45pm |
| Thursday | 1:30pm – 4:00pm      |

Class Meeting Time:

<table>
<thead>
<tr>
<th>Meeting Day</th>
<th>Meeting Location</th>
<th>Meeting Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thursday Seminar</td>
<td>STEM 103</td>
<td>4:00pm - 4:50pm</td>
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<tr>
<td>Friday</td>
<td>STEM 201</td>
<td>1:00pm - 1:50pm</td>
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<tr>
<td>Friday</td>
<td>Lab Preparatory Meeting</td>
<td>2:00pm – 2:50pm</td>
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Course Description

This course provides a supervised teaching internship through individualized teaching instruction, preparation, and pedagogical discussion of teaching college physics and engineering labs. Additionally, the course provides professional development for graduate students in seeking post-graduate schooling and employment, thesis and capstone mentorship, and graduate advising within the interdisciplinary degree. This course is a requirement of all first year graduate teaching assistantship but does not count toward basic requirements for the degree. Pass/Fail.

Course Objectives

At the end of PHYS 5381 A & B, a graduate student who has earned a passing grade should be able to:

a. Develop laboratory lesson plans for delivery of introductory physics or engineering labs.

b. Display appropriate time and classroom management for laboratory activities.

c. Identify high-impact practices fostering group activity within a laboratory setting.
d. Identify laboratory safety standards and protocols. This includes a working understanding of eye-wash and showering safety equipment and proper disposal of potentially hazardous materials.

e. Develop fair and equitable laboratory assessment tools for laboratory students, including grading metrics.

f. Coordinate lab preparation among multiple sections. This includes a working knowledge of using shared resources for improve collaboration and communication within Microsoft Teams, OneDrive, and other collaborative environments.

In addition, the student shall:

a. Complete a professional resume that is reviewed by SFASU Career Services.

b. Complete a mock interview conducted through SFASU Career Services.

c. Understand graduate obligations for thesis and non-thesis tracks.

d. Be aware of faculty research opportunities available for capstone and graduate thesis research.

e. Be knowledgeable of internet locations documenting available industrial and academic positions. This includes having the materials readily available to apply for open positions.

f. Attend a job or career fair or professional conference and be knowledgeable of professional decorum.

Complimentary MSNAS Program Learning Objectives

**PLO 2.** Communication: The student will demonstrate effective oral and written communication pertinent to the specific STEM-related programs of study.

**PLO 3.** Value Added: The student demonstrates preparation for employment or career advancement within a STEM or STEM-related field.

Materials


Course Requirements

A passing grade of P will be earned for a student that completes their responsibilities in teaching and professional development as detailed below:

a. Attend weekly lab preparatory meetings with faculty lab mentor.
b. Complete all laboratory safety training.
c. Develop a resume that has been evaluated by SFASU Career Services.
d. Complete a mock interview through SFASU Career Services.
e. Develop a statement of purpose to be used.
f. Curate letters of recommendation, develop a statement of purpose, and convert letter for forthcoming industrial and academic applications.
g. Attend at least one job and career fair.
h. Interview at least three faculty members in CoSM about potential capstone and thesis research opportunities.
i. Attend all departmental Thursday seminars.
j. Complete all reading assignments and related discussion obligations (i.e. D2L discussion board and group discussions)

Course Calendar

- Week 1: Introductions and Expectation of a GTA
- Week 2: Ethics and Academic Integrity
- Week 3: Grading and Creating Effective Assessments
- Weeks 3-8: Elements of Effective Thinking Group Discussions
  - Chapter 1: Earth - Grounding your Thinking
  - Chapter 2: Fire – Igniting Insights through Mistakes
  - Chapter 3: Air – Creating Questions out of Thin Air
  - Chapter 4: Water – Seeing the Flow of Ideas
  - Chapter 5: Elements – Engaging Change
  - Summary: A Way to Provoke Effective Thinking
- Weeks 9: Using Assessments to Inform Pedagogy and Introspection
- Weeks 10-12: Research Discovery Meetings with CoSM Faculty
- Weeks 13-15:
  - Resume creation and critique
  - Exploring Employment Opportunities and developing application materials

Attendance Policy

The student shall attend all:

a. Available department seminars.
b. Laboratory preparation meetings.
c. Regular discussion and class time meetings.
University Policies

Mental Health Statement

SFASU values students’ mental health and the role it plays in academic and overall student success. SFA provides a variety of resources to support students’ mental health and wellness. Many of these resources are free, and all of them are confidential.

On-campus Resources:

SFASU Counseling Services
www.sfasu.edu/counselingservices
3rd Floor Rusk Building
936-468-2401

SFASU Human Services Counseling Clinic
www.sfasu.edu/humanservices/139.asp
Human Services Room 202
936-468-1041

Crisis Resources:
Burke 24-hour crisis line 1(800) 392-8343
Suicide Prevention Lifeline 1(800) 273-TALK (8255)
Crisis Text Line: Text HELLO to 741-741

Academic Integrity (4.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating
the words or ideas of an author into one's paper without giving the author due credit. Please read the complete policy at http://www.sfasu.edu/policies/4.1-student-academic-dishonesty.pdf.

**Withheld Grades Semester Grades Policy 5.5)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. For additional information, go to http://www.sfasu.edu/policies/course-grades-5.5.pdf.

**Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

**Disclaimer:** Per SFA policy 5.4, this schedule and chosen exercises reflects that for each credit hour we will have one hour of faculty instruction with at least two hours of out-of-class student work per week. In other words, for an X credit hour class the student should expect X class hours of faculty instruction with 2 times X out-of-class hours of student work per week.