

## ***Instructionally Related Activities Report Form***

SPONSOR: Dr. Geoff Dougherty

PROGRAM/DEPARTMENT: Applied Physics

ACTIVITY TITLE: Let's Get Astrophysical

DATE (S) OF ACTIVITY: May 3-4, 2019

Please submit via email to the IRA Coordinator along with any supporting documentation at [david.daniels@csuci.edu](mailto:david.daniels@csuci.edu) within 30 days after the activity.

Thank you for your commitment to engaging our students!

### **(1) PROVIDE A DESCRIPTION OF THE ACTIVITY**

The multimedia class experience which Dr. Fiorella Terenzi created for ASTR/PHYS 107 also called Lets Get Astrophysical collided theater, dance, performance, art, creative design, music, videography, physics, and astronomy in a unique new form of learning and expression – the creation of the Space Opera. At California State University Channel Islands, the class culminated in two 15 minutes each live performance musical on stage for Arts Under The Stars Festival as a collaboration between the departments of Physics, Music, Dance and Theater department was forged.

### **(2) HOW DID THE ACTIVITY RELATE TO A COURSE(S) AND/OR LEARNING OBJECTIVES?**

Let's get Astrophysical related to ASTR/PHYS 107 . It addressed those students with a passion for science and dance, design and music, acting and theater, editing and lighting, performance art and graphic, motion design and technology. They were able to collaborate in a hands-on environment to create a transformative, high-energy transformative musical live performance while studying astronomy.

### **(3) WHAT DO YOU SEE AS THE STRENGTHS OF THE ACTIVITY?**

My interest was in creating programs that don't just address the needs of students who are already well on their way to becoming scientists, but to effectively engage a broader population of students who would have not traditionally considered a path in the sciences.

It is for that reason that I have moved my focus from teaching traditional sciences (STEM) the way it was taught to us, and have been embracing new modalities of communications to get their attention, and then to educate and inspire! Modalities designed to "get through" to our young minds, and both help to educate them, and inspire them to higher education, and to make a contribution to society.

### **(4) WHAT WOULD YOU SAY ARE/WERE THE ACTIVITY'S WEAKNESSES?**

Perhaps for some student an *Emotional* engagement into the science was somewhat intimidating as it was the first time they experience that. Yet at the end my students testimonial reported below, showed an engagement into the science I have seldom see before.

## **(5) HOW WOULD YOU IMPROVE THIS ACTIVITY FOR NEXT TIME?**

I would allow students to write their own story and really bond with the subject matter, in this questions astronomy.

## **(6) WHAT DID YOU LEARN FROM THE PROCESS?**

I believe we can use entertainment and contemporary media to capture students' attention in an era of increasingly short attention spans. This provides a pathway for deep engagement, and ultimately to enlightenment. In my opinion, the combined effects of an increasingly sound-bite culture, texts, tweets, youtube, has made it nearly impossible to sustain a meaningful public dialog on often-complex topics - such as the sciences.

## **(7) WHAT ARE STUDENT RESPONSES TO THE ACTIVITY? ATTACH STUDENT EVALUATIONS OR ASSESSMENTS (IN ACCORDANCE WITH FERPA RESTRICTIONS YOU MUST REMOVE ALL PERSONALLY IDENTIFIABLE STUDENT INFORMATION)**

Heather A "It keeps me more engaged than sitting at the desk taking notes"

Jayd J: "I can combine arts and science, class is fun, team work"

Megan G: "A more lively science! It ties in with the lecture side"

Emma G: "Science concept is less intimidating, hands of approach, a lot of moving parts!"

Heba J: "We created it together. Dr. Terenzi came in with a foundation. It has been amazing".

Sara H: "I like it, it got me out of my comfort zone. First time on stage. I have never done it."

Nicole M: "A physics class with performance arts! A different way of learning".

Bobak: "A whole new deal I like it a lot, it works, a good way to interact, not sitting down taking notes."

Students' video testimonial:

<https://www.youtube.com/watch?v=Ba5utMrvfgA&list=PLFV3bVe4-YXBjjuw7eEyHALKmwf1uGJC->

## **(8) GIVE A SUMMARY OF EXPENSES FOR THE ACTIVITY.**

- Script development, professional revision, planning, implementation: \$600
- Costumes design, T-Shirts for students with CSUCI and Let's Get astrophysical logos, material: \$600
- Special effects lights, strobes light, accent lighting, glow in the dark etc: \$200
- Instructional material (books, astronomy apps to download and review, iTunes, CDs, sci fi, movies, art): \$400
- Flyers and posters, design and layout: \$200
- *Social media presence (twitter, youtube, facebook, instagram): \$300 NOT APPROVED*
- Instruments rentals, microphones, keyboards, effects box, cables: \$300



California State  
University

## INSTRUCTIONALLY RELATED ACTIVITIES

### C H A N N E L

Specialized equipments like moon globes, stellar gadgets, astrolabe, celestial spheres, props with stellar reference: \$400

- TOTAL: \$2700

## **B. ON SEPARATE DOCUMENT, PLEASE ATTACH ATTENDEE LIST (PERSONALLY IDENTIFIABLE INFO REMOVED)**

## **C. PLEASE INCLUDE UP TO 6 IMAGES AS ATTACHMENTS TO YOUR SUBMISSION**

"Lets Get Astrophysical" intro videos:

<https://www.youtube.com/watch?v=Qz6n8KBL5ys&list=PLFV3bVe4-YXBjjuw7eEyHALKmwf1uGJC-&index=19&t=3s>

<https://www.youtube.com/watch?v=UTFzICZCcaE&list=PLFV3bVe4-YXBjjuw7eEyHALKmwf1uGJC-&index=20&t=2s>

Final live video of LGA at California State Univ.:

<https://www.youtube.com/watch?v=vmmhlZuNeD8>

Lets Get Astrophysical (short description):

[https://thriveglobal.com/?p=380316&preview\\_id=380316&preview\\_nonce=f170771996&preview=true&thumbnail\\_id=380322](https://thriveglobal.com/?p=380316&preview_id=380316&preview_nonce=f170771996&preview=true&thumbnail_id=380322)

<https://www.tubefilter.com/2019/05/24/education-fiorella-terenzi-influencers-college/>



California State  
University

**INSTRUCTIONALLY  
RELATED  
ACTIVITIES**

C H A N N E L  
I S L A N D S







California State  
University

## INSTRUCTIONALLY RELATED ACTIVITIES

C H A N N E L  
I S L A N D S

