

Presenting:
The Liberal Arts & Engineering Studies
Program

A Senior Project

presented to:

the Faculty of the Liberal Arts and Engineering Studies program

California Polytechnic State University, San Luis Obispo

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by

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I. Introduction

In this day and age of technological products and budding industries in Media Arts and Digital Design, there is a strong and impertinent need for

educational programs in technology. This kind of technical education can lead to a career that represents a critical investment in both the fields of the arts as well as aspects of engineering. Furthermore, one that includes the technological aspects of industry from the arts to social sciences and humanities, with a technical and more mathematical background, such as a solid base in practical engineering concepts in needed fields like electrical and industrial. California Polytechnic State University, San Luis Obispo has created such a program, the Liberal Arts and Engineering Studies (LAES) program. This program allows students to combine the creativity of the arts with the technicality of an engineering field. Within LAES, students select classes of their choosing, being advised by creators of the program themselves instead of an advisory board, to prepare for a degree in a unique field, such as television & film production, audio engineering, animation & video game design, theme park ride design, etc. With such a compelling program, there must be explanation and advertisement so that the right kind of student can discover and become inspired by this new fascination in higher education. For example, a student who is interested in pursuing his or her passion in an industry with no set or structured course of study already laid out. This kind of education “offers students opportunities for career awareness and preparation by providing them with the academic and technical knowledge and work-related skills necessary to be successful in

postsecondary education, training, and employment.”¹ Employers of many different backgrounds will turn to people with “an important source of talent that they need to fill skilled positions within their companies.”² Henceforth, a series of short documentary-like films are being created about the (LAES) program to give a higher arching overview of the basis and heart behind such a richly academic and rigorous environment. This paper will discuss the process of developing these promotional films, and how the final product will help the university gain a better understanding of the Liberal Arts and Engineering Studies program in regards to their education and future career goals.

II. Background

“All films start in the same place: with an idea.”³ In addition to a great idea, having access to your subject matter is a key point in making a great documentary film. A story must be developed around your subject matter that intrigues and inspires the target audience. In the case of filmmaker, Dorothy Fadiman, the best thing to do is begin with an overview:

- Who do I want to interview?
- What locations do I want to visit and perhaps shoot?
- What activities do I want to capture?

¹ See reference 1 in Section X. References

² See reference 1 in Section X. References

³ See reference 2 in Section X. References

- What research do I need to do?⁴

Taking these questions into consideration, one develops a general outline of the process before filming can begin. One first needs to know how to use a Canon XHA1 camera, which is the camera that was used in this specific project to conduct each interview. This camera plays a vital role in any interview or camera work one wishes to do for a project because you can do so many things with it.



Figure 1: Canon XHA1 camera.

For example, the handle at the top of the camera (as seen in Figure 1 above) offers the user a wide variety of swivel and panning shots, although a tripod was utilized during this particular project for steady focus on the subject of the

⁴ See reference 3 in Section X. References

interview. If anyone were to use this specific camera to conduct interviews for a project, a tripod should be used to keep it in one place, so one does not have to worry about shakiness and/or a skewed image. Microphones are also highly important in achieving a specific sound quality within a project. To achieve optimal interview footage, the camera should be set at least ten feet away from the interviewee. An AKG microphone should be utilized for recording the sound of the interviewee's voice.



Figure 2: AKG Microphone and XLR cable.

In order to do this, an XLR cable (seen in Figure 2 above) must be connected from the Canon camera to the AKG microphone across the room that sits below the frame and the interviewee. The sound levels of the microphone are displayed on the screen of the camera so one can see how much noise enters the microphone.

III. Deliverable

One promotional film has been delivered to encompass the full work of this senior project. This video will help prospective LAES students see the diversity of the program as well as see what being a part of the LAES program can do for them once they graduate. The video will be a core way of showing other people the concept of the LAES program. This film is designed to bring life to LAES by not only telling viewers about the program but also giving them a taste of what it would be like to be involved in the program. Each student was selected based on their experience in the program, and their ability to speak in detail about the technological aspects and the uniqueness of the program. This short film watches like a promo made for a movie; students' dialogue is interlaced with footage from related projects, while the teaser clip only consists of one-liners about the program. When a company makes a promo for a movie, they are asked to make different versions, so that the movie can be showcased in as little as ten seconds and as many as four minutes. The same goal was attained here, so that someone watching the teaser still gets a feel for the program as someone who is watching the four-minute film.

IV. Design/Implementation

To understand the background of this piece of work, one needs to understand the process that has progressed throughout the entirety of this project. A Google document started the process with the interviewer's availability, so that LAES students could sign up based on their own schedules (see Figure 3 below).

Production Schedule for LAES Interviews

Below is my availability for the rest of the quarter. Write your name and the time you would like your interview under the day. Please **highlight** your name so people can clearly see that the time you have selected is taken. Please give 3 days notice and allow 30-45 minutes for interview. If you have already interviewed and would like to set up another interview time, feel free to do so.

Figure 3: Google Doc created with Interviewer's availability.

In the LAES lab, a black curtain was set up in one of the corners to serve as a black backdrop during the interviews; that way, the background would not distract or gauge focus from the interviewee. Lighting equipment was also set up with the same lamps and overhead lights on during all the interviews, so the lighting would be consistent. A boom microphone was set up for the person being interviewed just below the frame. The black curtain only appeared in the teaser trailer because that piece was to serve the purpose of keeping one's focus on the dialogue of the students. The teaser trailer was made to serve one purpose, and that is to give an introductory teaser into what the LAES program

is and what it can represent for a prospective student's future. The camera was always set up ten feet away from the interviewee. Black tape marks were set on the floor so that the camera could be set up in the exact same place each time a person was interviewed, as the interviews spanned over several weeks.



Figure 4: Floor space for camera set up

Final Cut Pro (version 7) was used to compile all interview footage, cut the over 13 and ½ hours of footage down to the four minute promotional video, and adjust sound levels.

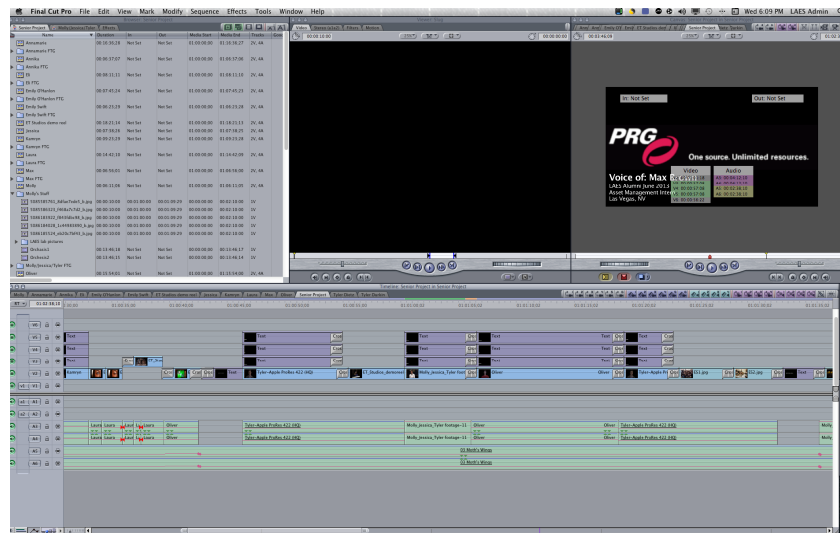


Figure 5: Final Cut Pro (Version 7) screen layout.

Each bin (pictured in the upper left corner of Figure 5) provided each persons interview footage, as well as the promotional material from past projects and images that were interlaced with each person’s dialogue. Each sequence tab (pictured in the middle of Figure 5) held each person’s interview to be able to cut and put together the four-minute promotional film in a separate tab. Pictured in Figure 6 below are zoomed in versions of the sequence tab and the bins holding all footage.

Annamarie	00:16:36.28	Not Set	Not Set	01:00:00.00	01:16:36.27	2V, 4A
Annamarie FTG						
Annika	00:06:37.07	Not Set	Not Set	01:00:00.00	01:06:37.06	2V, 4A
Annika FTG						
Eli	00:08:11.11	Not Set	Not Set	01:00:00.00	01:08:11.10	2V, 4A
Eli FTG						
Emily O'Hanlon	00:07:45.24	Not Set	Not Set	01:00:00.00	01:07:45.23	2V, 4A
Emily O'Hanlon FTG						
Emily Swift	00:06:23.29	Not Set	Not Set	01:00:00.00	01:06:23.28	2V, 4A
Emily Swift FTG						
ET Studios demo reel	00:18:21.14	Not Set	Not Set	01:00:00.00	01:18:21.13	2V, 4A
Jessica	00:07:38.26	Not Set	Not Set	01:00:00.00	01:07:38.25	2V, 4A
Kamryn	00:09:23.29	Not Set	Not Set	01:00:00.00	01:09:23.28	2V, 4A
Kamryn FTG						
Laura	00:14:42.10	Not Set	Not Set	01:00:00.00	01:14:42.09	2V, 4A
Laura FTG						
Max	00:06:56.01	Not Set	Not Set	01:00:00.00	01:06:56.00	2V, 4A
Max FTG						
Molly	00:06:11.06	Not Set	Not Set	01:00:00.00	01:06:11.05	2V, 4A
Molly's Stuff						
5085585761_bdfae7ede5_b.jpg	00:00:10.00	00:01:00.00	00:01:09.29	00:00:00.00	00:02:10.00	1V
5085586323_1468a7c7d2_b.jpg	00:00:10.00	00:01:00.00	00:01:09.29	00:00:00.00	00:02:10.00	1V
5086183922_1843fdbc98_b.jpg	00:00:10.00	00:01:00.00	00:01:09.29	00:00:00.00	00:02:10.00	1V
5086184028_1c44983890_b.jpg	00:00:10.00	00:01:00.00	00:01:09.29	00:00:00.00	00:02:10.00	1V
5086185524_eb20c7bf43_b.jpg	00:00:10.00	00:01:00.00	00:01:09.29	00:00:00.00	00:02:10.00	1V
LAES lab pictures						
Orchasis1	00:13:46.18	Not Set	Not Set	00:00:00.00	00:13:46.17	1V
Orchasis2	00:13:46.15	Not Set	Not Set	00:00:00.00	00:13:46.14	1V
Molly/Jessica/Tyler FTG						
Oliver	00:15:54.01	Not Set	Not Set	01:00:00.00	01:15:54.00	2V, 4A

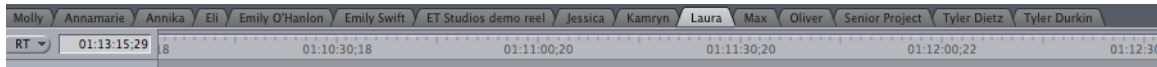


Figure 6: Bin and Sequence displays within Final Cut Pro.

V. Analysis

To assess and verify what has been accomplished so far in Senior Project I, two different Cal Poly students that are not in the Liberal Arts and Engineering Studies Program were interviewed for their opinion on the LAES Teaser Trailer. After watching the trailer, the first student noticed that the program had a diverse array of students, but she also said that the trailer did not give her enough information about the program. The second student I asked said similar things. She stated that the trailer did a good job at promoting the program and that the LAES Program seemed eclectic, but that she too wanted more information. The Teaser Trailer was intended to intrigue and inspire and the upcoming video will then go more in depth with intricate details about the program to give a further detailed explanation.

VI. Societal Impacts

The local community would be greatly affected by this project. If the video clips being produced were to cause the LAES Program to grow and hold hundreds of students who desire to design and create things, there would be so

many students in this community creating and giving back to society. In past LAES Projects, there have been volunteers for the San Luis Obispo International Film Festival and LAES students that have done work with Aspect Studios, a local production company. If the program continues to grow, not only will students continue to participate with companies and events like these in the future, but students will also come up with interesting and creative ways for new projects in our community.

VII. Related Work

In past years there have been some efforts to interview students in the program and make a documentary video about it, but none have been completed. This work is similar to the past project in that interviews have been conducted with students from the program as a means to promote the program and educate people on the kinds of things that are done and what kinds of jobs one could obtain upon graduation. The goal of the past project was to keep footage of students so that future students watching it could better understand where the program came from. One could infer that the purpose of this was to promote the program or be viewed by the public in any way. This particular project work is solely for the public and its purpose is to promote the program

and educate prospective freshman and current university students interested in transferring into the program.

IX. Conclusion

To conclude, these videos will be a viable part for informing people about the Liberal Arts and Engineering Studies program. Once these videos are on the website, students and faculty alike that might on some level be confused about what exactly the program is, can view these videos and learn everything they would ever want to know about the program. However, these videos might need to be updated in coming years, because there could be a new concentration added or jobs that alumni get that are a little different than what they intended. This way, viewers would be updated with the latest of the happenings in the program and will not feel like they are being educated with outdated information. The Liberal Arts and Engineering Studies program is education for the current generation and job market and will equip its students with the necessary tools to succeed upon graduation.

VIII. Future Work

If there was another year to work on this series of documentary-like educational videos, travel to every location to talk to whoever has been in the

Liberal Arts and Engineering Studies program, regardless of whether they have graduated from it or not, would definitely be utilized. Footage of these alumni would be gathered at their current job, which for most alumni is exactly the kind of career they strived for while in the LAES program. At least five minutes would be devoted to highlight these people and truly show prospective students watching this video what one can achieve with a degree from the LAES program. There would also be more depth into the different study abroad programs that students have gone on. A further in depth testimony would be obtained from LAES senior, Tyler Durkin, and LAES alumni, Tyler Whipple, about their time abroad in London with Co-Director, David Gillette. An in depth interview with, David Gillette, who first came up with the idea for the Liberal Arts and Engineering Studies program from his time spent at the Queensland University of Technology in Brisbane, Australia would also serve its own purpose through a two-minute video. The more people understand of the initial idea and concept for the program, the more people will understand of the program in general.

X. References

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3. Levelle, Tony. "Planning an Unscripted Documentary." *Planning an Unscripted Documentary*. Writer's Store, n.d. Web. 25 Nov. 2013.