

Addition of an Internship Prep Course to the CM Curriculum

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The Cal Poly Construction Management program does an amazing job giving students opportunities to receive summer internships. Just about every student in the CM program will have some form of summer internship during their time at Cal Poly. All CM classes are designed to prepare students for internships. That being said, there is no specific class within the CM curriculum that is 100% Internship focused. Allowing students an opportunity to take a course that would focus on preparing them for their summer internships, students will be more confident and better equipped to take on the tasks of an intern at a construction company. This course is designed to teach skills and concepts related to internships within the construction industry. These skills and concepts will teach students how to get the most out of their internships and navigate potential scenarios they might face. This paper will analyze student interest in taking this course. It will also decide some of the topics that will be taught. A survey was conducted in order to receive feedback from Construction Management students about interest in this course. The results of this survey showed that this course does not have enough student interest to implement into the curriculum.

Key Words: Internship, Survey, Prepare, Curriculum, Interest

Introduction

Whether it is by way of informational sessions that occur every week or the career fair that occurs once a quarter, there are numerous ways students can receive internships. Students have limited options when it comes to preparing for summer internships. For starters, it's a good idea for students to do research on the company and some of the projects they have completed. This will give them a good understanding of the type of work they might be doing along with some general background of the company. This is something that most students do and is very beneficial. Next, students have the opportunity to seek guidance from one of the many qualified CM faculty members or peers. Asking teachers or peers about internships can be a great tool to understand what interns do and what to expect for the upcoming summer. There are a few problems with this method. For starters, students typically have their first summer internship in their first or second year at Cal Poly. A first or even second year student might not feel comfortable enough with any faculty or other students to ask these questions. On top of that, students who have a more GE or prerequisite heavy course load might fall behind in the CM classes. An internship opportunity might be intimidating for someone with little experience in the construction field.

Cal Poly's Construction Management curriculum does not offer any course that teaches internship prep materials. The idea behind this course is that it would be offered in the spring, just before summer. This would allow for the concepts in this class to be fresh in the minds for the students who will soon be working as an intern. This course would benefit students because they would be going into their internships more confident and knowledgeable about some of the tasks they might perform during their internships. For construction companies time spent training new employees is time that could be used on actual work. Not only does this course help educate students but it could also benefit companies. Having interns that are prepared for the work they are expected to perform would greatly

cut down on the time needed to train these employees. This would make Cal Poly CM students much more desirable for internship positions. The primary goals of my research is to (1) determine students' interest in taking this internship prep course and (2) determine some of the topics that would be relevant to preparing students for their internships.

Literature Review

Senior projects *Implementing an "Intro to SST" Topics Course* (Cody, 2018) and *Investigating Student Interest in the Addition of a Construction Law Topics Course* (Merrill-Gehrke, 2018) helped me design my survey and how to present my findings. Those projects are cited in the "References" section of this paper.

Previous knowledge used for the basis of this research is as follows. Internships are a very important way for students to receive hands-on experience in the construction industry. According to a study conducted by Virginia Tech, internships give students real world experience which enhances and reinforces the things we learn in the classroom. In "lab courses the material is presented from an academic perspective, in a prescribed and safe environment" (Short, 2013). Internships fill in the gaps between the course material and the real world. That is why it is important to get the outside experience of an internship that will give you a better perspective on what you are studying to be.

Construction programs around the country recognize the value of a quality internship and thus have created positions within their faculty dedicated to coordinating and administering the internship process (Badger, Pruitt 1998). These "internship directors" dedicate 60% of their annual effort directly towards students and their internships. Some schools already have this course implemented into their curriculum. For example at Colorado State University a pre internship course exists and is mandatory for all Construction Management students (*Major in Construction Management 2022*). The course description states "Skills and concepts related to successful internships within the construction management industry". Colorado State University believes this is such an important topic that this course is a mandatory requirement in their curriculum.

In a study performed at Colorado state University titled *Impact of Structured Internship Programs on Student Performance in Construction Management Curricula*. Found that if the goals of educators are trying to "augment the curriculum, enhance academic learning, and increase the stature of the academic program" (Rondinelli, Allen, Hauck, 1997) then they might fall short when it comes to helping students receive internships. If educators ensure students have, "interview opportunities, gain exposure to the industry, and are assigned challenging tasks" (Rondinelli, Allen, Hauck, 1997), internships have turned out to be more worthwhile for the students. This is great information on how to start developing an Internship prep course for Cal Poly..

Methodology

The methodology of research that would need to be completed for this project would involve both qualitative and quantitative data. The quantitative data is a survey of the students here at Cal Poly. This survey uses questions to determine if enough students feel that this class would be worth adding to the Construction Management curriculum. The qualitative data comes from the survey also. The survey asks students to give their input on what content of the course should be.

My Question was to determine student interest in taking this course. To determine this, a survey was conducted. The survey was written in such a way that by the end of answering the questions it would be clear to someone analyzing the survey whether or not there is enough student interest to create this course. After doing this process I came up with 11 questions that would allow me to best determine student interest in an Internship prep course. The survey was discussed and created with the help of Subject Matter Expert Phil Barlow. After getting signed off by my SME the survey was sent out to the entire Construction Management student body. Students are encouraged to participate in these surveys. These questions should be taken by Cal Poly construction management students. Now it is important to wait a few weeks in order to provide sufficient time for students to take the survey. The questions are answered and it is time for analysis. If an overwhelming number of the survey takers are saying “yes” this course should be added to the curriculum. If the survey takers are saying “no ” to most of the questions, that is proof that there is not enough student interest in order to create this course.

Results and Discussion

Question #1, #2, and #3 were designed to get the background of the people that are taking the survey. These questions ask what year the student is, their internship experience level, and the sector of the construction industry their internships were in. The results show that a good majority of students who took the survey were either juniors or seniors (11) with a few students being sophomores or 5th+ year (5,4). A large majority of the students who took the survey have at least one internship representing each field.

1. What year are you at Cal Poly? (0 point)

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● Freshman	1
● Sophomore	5
● Junior	11
● Senior	11
● 5th+	4



2. How many summers have you interned for? (0 point)

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● 1	9
● 2	16
● 3	4
● 4	2



3. What sector of the construction industry was your internship(s) in? Check all that apply.

[More Details](#)

● Commercial	22
● Residential	10
● Subcontractor	4
● Heavy Civil	12
● Other	1



Figure 1: Questions 1, 2, and 3 of the Survey

Question #4 is meant to assess the level of preparedness students felt going into their first internship. This was done on a scale 1 to 10, 1 being not prepared and 10 being very prepared. The average answer to this question over the 32 survey takers was a 4.13. This makes perfect sense since most students go into their first internship with little to no experience in the construction industry. This answer shows that students are underprepared for their first internships.

4. On a scale 1-10 going into your first internship how prepared did you feel? (0 point)
(1= not prepared 10= very prepared)

[More Details](#)

Insights

4.13
Average Rating

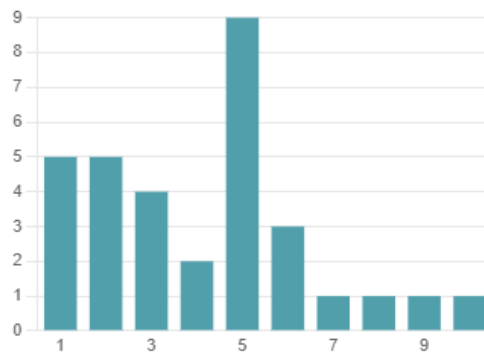


Figure 2: Question 4 of the Survey

Question #5 and #6 ask, “whether or not they think the internship prep course would be a good resource to students who have not yet been an intern?” and “do they have any interest in taking the one unit pre-internship tech elective/topics course if given the option?” A majority(19/32 59%) of the students said they thought this course would be a good resource for students who have not yet had an

internship. On the other hand when asked if they would take or would have taken the class, the answers were more split 13 yes, 12 no, 7 maybe.

5. Do you think an internship prep course would be a good resource for students who have not yet been an intern?

[More Details](#)



6. Do you have any interest in taking the one unit pre-internship tech elective/topics course if given the option?

[More Details](#)

[Insights](#)

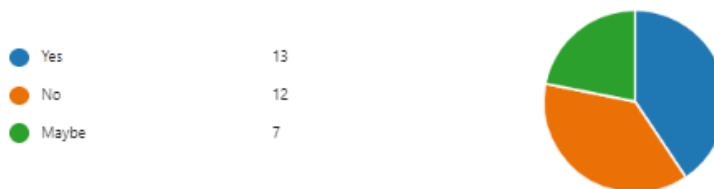


Figure 3: Question 5,6 of the Survey

Question #7 asks the survey taker to rank their interest level on a scale 1 to 10, 1 being not interested and 10 being very interested. The average rating was 5.66. This is pretty low but this will be explained in the next question.

Figure 4: Question #7 of the Survey

Question #8 is a free response question that asks to explain their answer to question #7. There were many very different answers. From these comments I have gathered that if the class was 2 units rather than 1, students would be more inclined to take it. The class should also be offered to freshmen. According to the responses they think this is the time where students will want to take it the most. It is because of these problems that the average answer from #7 is a 5.66.

Question #9 is a question meant to determine what topics students want covered in this course. The question asks “Do you agree or disagree that these topics should be taught in the Internship prep course?” The survey takers must answer if they strongly agree, agree, neutral, disagree, and strongly disagree that the topic should be taught in the course. The first topic was the most strongly agreed with at, learning what an intern does (RFIs, procurement logs, etc.)(50% strongly agreed). The

second most agreed with topic was testimonies from previous CM students who have had an internship at 43.8% strongly agreed. The third most agreed topic was strategies/techniques on how to effectively perform your work. This topic had 34.5% of the people strongly agree and 56.3% agree. There was more negative feedback from the last 2 questions. A better understanding about what companies want from their interns and receiving training that teaches basic safety and health information had the most neutral and disagree votes. The results imply that students would want the focus of the course to be on the top 3 topics and the bottom 2 can be focused on less.

9. Do you agree or disagree that these topics should be taught in the Internship prep course? (0 point)

[More Details](#)

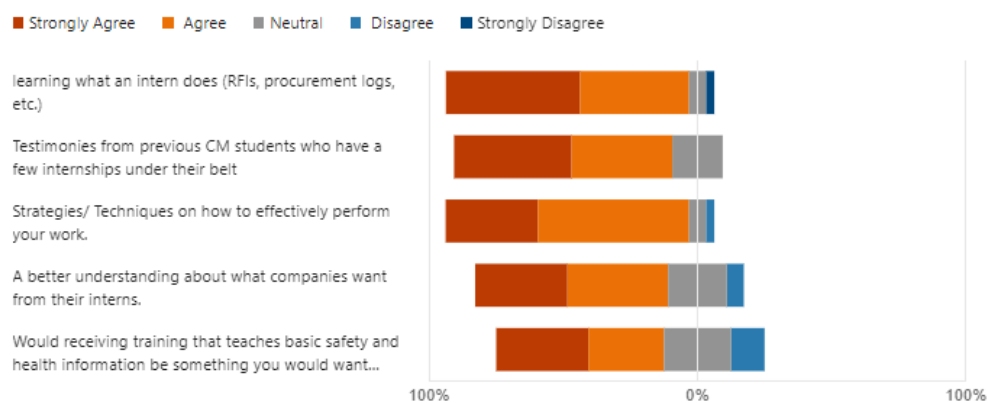


Figure 5: Question #9 of the survey

Question #10 is another open ended question that asks “Please list any other topics you would want to be covered in this course.” This question is used to get student input on what other things they think should be included to better cater to the needs of the students. There were many really great ideas on possible topics in the course. A lot of answers talked about having a portion of the course dedicated to language and how to act professionally. This would also include interview skills and how to talk with other business professionals. Another common comment said that the course should teach you how to deal with “bad internships”. This can be equated to teaching things like time management and how to stay involved when companies are not giving you much work to perform.

Question #11 is the last question of the survey. This question asks “what should the format of the class be?”. This will help let the faculty know how the students think this class would be best formatted. Over half of the survey takers said the course should be offered in person. These results suggest that the course should be offered in person.

11. What do you think the best format for this course would be? (0 point)

[More Details](#)

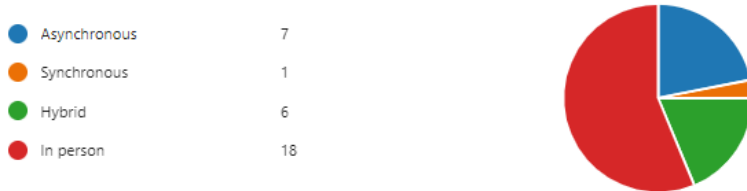


Figure 6: Question #11 of the Survey

Conclusion

The goal of my research was to gauge student interest in taking an internship prep course and also determining some topics that should be taught within the course. My inspiration for this study came from my own experiences within the Construction Management major. I did not have my first internship until I was a senior. This is partly because I was very discouraged by early rejection from companies as a sophomore. I didn't feel confident in my ability to perform work since I had been rejected by a handful of companies. I also felt that I did not yet have the tools to effectively be an intern. For example I had a very difficult time answering technical questions at interviews because I had very little exposure to the construction industry. There is a lot of anxiety students get going into a new job environment. I wish this class was offered when I was a freshmen student to prepare me for the internship process.

There were a number of takeaways I got from the survey results. For starters the course should be a 2 unit course. The survey implies that students are more willing to take the course if it was worth more units. The next change that should be made according to the responses is that this class should not be a technical elective since you have to be junior standing to take a technical elective. It should simply be offered as a supplemental program that students have the option to take. The survey also showed that this course is not for everyone. In the free response questions of the survey the results were split 50/50 on people wanting this class in the CM curriculum. About half of the students were enthusiastic about the course and said it would have helped them. On the other hand, about half of the students thought that this course was not needed. Since only half of the 32 people surveyed would have taken the class, I do not think the interest is there to implement this class into the Construction Management curriculum.

Future Research

Moving on from the survey the only future research that can be done would be making the changes suggested by the students. After the changes are made, this survey can be sent out again to really see if this class could gain traction with the younger students. One possible idea is that instead of an entire course. The contents of this class can be changed into a seminar format. This would mean less commitment from students and will possibly accomplish the same goals as implementing a new course. Another area within this study that can still be explored is if younger students would have

more interest in taking this course. A majority of my research came from juniors, seniors, and 5th+ years. There might have been a different outcome if more freshmen and sophomores would have been surveyed.

References

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Appendix A

<https://forms.office.com/Pages/ResponsePage.aspx?id=2wING578IUSVNx03nMoq53wxehUcnVFFuDoGwC5uZCpURFRJVFo5V0paQzBDSTZKVjZEUIFBNEUxNy4u> (link to my survey)

Internship Prep Course - CM Technical Elective

This survey will consist of 11 questions and should be taken by Cal Poly construction management students and will only take a few minutes to complete. The purpose of this survey is to gauge the interest of adding an optional one unit technical elective or topics course designed to prepare students for summer internships in CM curriculum. In this course students will learn skills and concepts related to internships within the Construction industry. These skills and concepts will teach students how to get the most out of their internships along with navigating potential scenarios they might face at their summer internships.

1. What year are you at Cal Poly?

- Freshman
- Sophomore
- Junior
- Senior
- 5th+

2. How many summers have you interned for?

- 1
- 2
- 3
- 4

3. What sector of the construction industry was your internship(s) in? Check all that apply.

- Commercial
- Residential
- Subcontractor
- Heavy Civil
- Other

4. On a scale 1-10 going into your first internship how prepared did you feel?
(1= not prepared 10= very prepared)

1	2	3	4	5	6	7	8	9	10
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5. Do you think an internship prep course would be a good resource for students who have not yet been an intern?

- Yes
- No
- Maybe

6. Do you have any interest in taking the one unit pre-internship tech elective/topics course if given the option?

- Yes
- No
- Maybe

7. On a scale 1-10 what is your interest level in taking the one unit pre-internship tech elective/topics course if given the option? (1 = not interested 10 = very interested)

1	2	3	4	5	6	7	8	9	10
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8. Please explain your response to question #7

Enter your answer

9. Do you agree or disagree that these topics should be taught in the Internship prep course?

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
learning what an intern does (RFIs, procurement logs, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Testimonies from previous CM students who have a few internships under their belt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strategies/ Techniques on how to effectively perform your work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A better understanding about what companies want from their interns.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Would receiving training that teaches basic safety and health information be something you would want included in this course? (OSHA 10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Please list any other topics you would want to be covered in this course.

Enter your answer

11. What do you think the best format for this course would be?

- Asynchronous
- Synchronous
- Hybrid
- In person