

6/17/2021

## Spring 2021 Engineering Workshops Feedback Survey



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**MESA COLLEGE**

Institutional Research Office

# Spring 2021 Engineering Workshops Survey Feedback

## **Survey's Aim:**

The purpose of the survey was to learn about student interest in and/or satisfaction with the workshops and help inform decisions about the future of this program hosted by the Innovation Research Lab.

## **Methodology:**

A total of 52 students who RSVP'd to attend the ten Spring 2021 Engineering workshops were contacted via email and invited to complete an online survey via SurveyMonkey's. Data was collected from May 12 to May 25, 2021. A total of 14 students responded to the survey, resulting in an overall response rate of 27 percent. Of the 52 students contacted, only 35 attended at least one of the workshops. Since all of the survey respondents participated in at least one workshop, the response rate among workshop attendees was 40 percent. Because student attendance of workshops was varied, survey logic was applied to only ask questions based on a student's level of participation. To motivate student participation, a \$20 opportunity drawing was offered as an incentive.

## **Main Takeaways:**

- ✓ When students were asked, "Why were you originally interested in attending these workshops? (select all that apply)" The most common responses to this question were: to learn a new skill (93%), become more desirable to potential employers (64%), improve my chances of getting an internship, become more attractive to universities (29%), improve my odds of winning a scholarship (14%), and to learn new software (7%).
- ✓ When asked "If these workshops were offered as one-unit courses (at \$46 per unit), would you take the course or recommend it to another student?" A majority, seven students (50%) said yes, five (36%) said maybe, and two (14%) said no. Despite a preference for in-person instruction, those who said yes felt like the new skills they had acquired would benefit them in their future careers and studies, plus make it easier for them to get accepted into university engineering program. The naysayers felt that the course schedule was too slow, the course was overly broad, and the course material was readily available online.

### **Workshop Attendance:**

- “How many Engineering workshops did you complete by attending live or by watching the recordings and submitting your responses)?” Eight students (57%) reported having watched all ten workshops, four reported watching 8 to 9 (28.5%), and two students had either watched 1, or 2 to 7 workshops (14.2%).
- When asked if they had watched a workshop recording and responded to the questions that followed, no student reported watching all the workshops. All five students who responded to this question said that they had skipped a few workshops.
- Lack of time and scheduling conflicts were the most commonly cited reasons students gave for skipping some of the workshops. For students with perfect attendance, they attributed their motivation to a desire to earn extra credit, earn a certificate, enhance their engineering knowledge, and the class was the next best alternative after failing to get in their first choice class.

### **Workshop’s Value Proposition to Students:**

- In response to how satisfied students were with the workshop’s content, 57% strongly agreed, 21% either agreed or were neutral about the value of what they had learned.
- Regarding satisfaction with the way the workshop’s content was taught, 29% strongly agreed and 36% agreed that they were satisfied with the teaching style. But, 14% disagreed (were dissatisfied) while 21% were neutral (indifferent) to the course’s teaching style.
- There were two ties on the question of engagement, 29% of students either strongly agreed or were neutral and 21% either agreed or disagreed that the workshops were engaging.
- There was also a three-way tie in response to how well the Matlab software ran on student’s computers. While 14% agreed with the app’s performance, another 14% either disagreed or strongly disagreed (were dissatisfied) with the software’s performance. The remaining 29% of the students strongly agreed, while 21% were neutral regarding the performance of the software.
- Students also found the performance of the ANSYS software somewhat underwhelming with on only 29% strongly agreeing or agreeing that it performed well. The rest of the students strongly disagreed (21%), disagreed (14%) or were neutral (7%) regarding the software’s performance.

### **Other Tech Challenges:**

- Students had trouble running the Matlab and ANSYS software and could not readily get support. As one student majoring in computer science cautioned, “People should be warned ahead of time that 1- ansys does NOT run on Mac, which most students use, and 2- both programs require VERY capable computers, and barely even start up on the average student computer.”

### **Format Preferences for Future Workshops and Use of Support Resources:**

- Most students (50%) preferred attending workshops in person, 29% preferred a hybrid format (in person and online) and 21% preferred remotely offered workshops.
- Most students (79%) said yes, and 21% said no, to accessing any of the workshop’s recordings posted to the Innovation Research Lab (IRL) webpage?
- The good news is that all students were aware of the availability of the workshop’s recordings but 14% of the students still opted not to. Students who watched the recordings did so for review after first attending the workshop (50%), if they had missed a workshop (43%), or if they had completely missed the workshop (7%).

### **Would you Like a Participation/Attendance Certificate?**

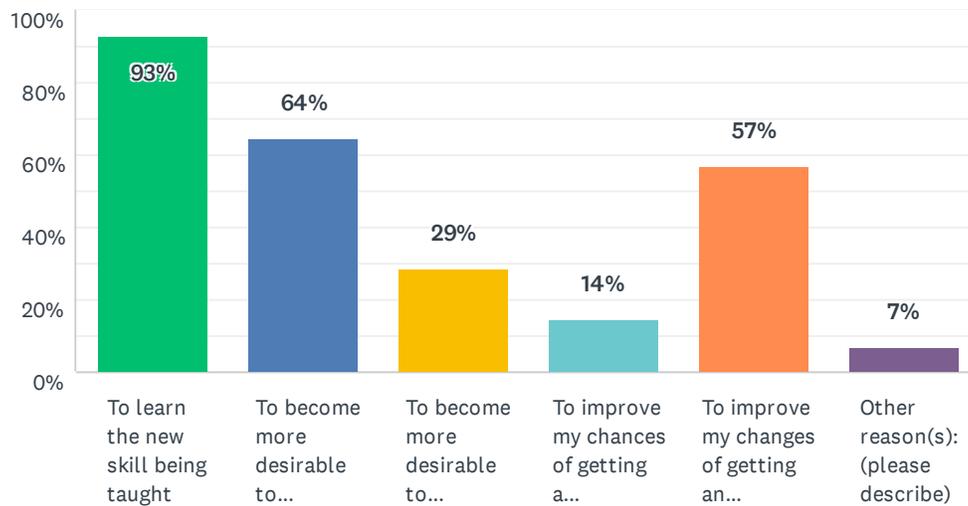
- Most students (79%) would like to receive a participation/completion certificate, while 21% said it was not important to them. For students who wanted a certificated their reasons included: a belief that it would improve their chances of getting accepted into a full-fledged university engineering program, offer verifiable proof of an additional skill they had learned on their resumes which could hopefully help them land an internship.

### **Future Educational/Career Goals:**

- “Obtain an associate’s degree and transfer to a 4-year institution” was the response given by 71% of students, while 21% percent said they will transfer without one.
- Career goals ranged from developmental real estate to getting a PhD in environmental engineering. Three students specifically mentioned wanting to train as mechanical engineers, other career goals included designing prosthetics, working in construction, developing useful technologies for everyday living, go in business for themselves, etc.

## Q1 Why were you originally interested in attending these workshops? [Select all that apply]

Answered: 14 Skipped: 0

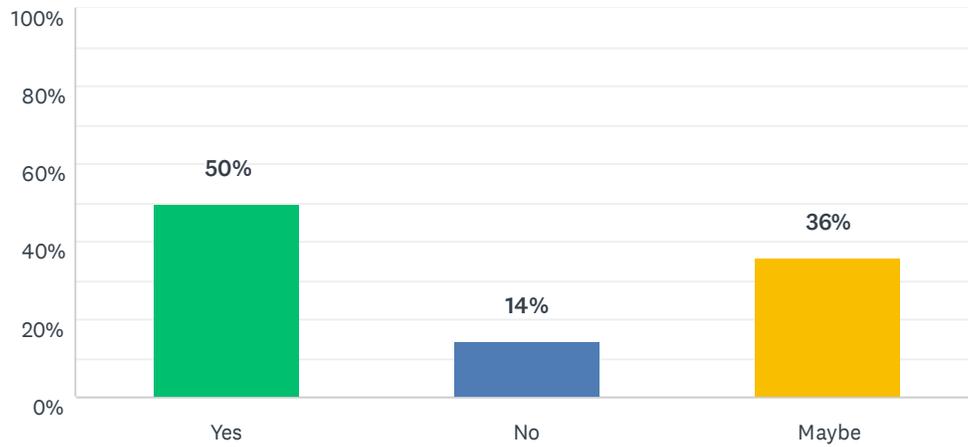


ANSWER CHOICES	RESPONSES	
To learn the new skill being taught	93%	13
To become more desirable to potential employers	64%	9
To become more desirable to universities	29%	4
To improve my chances of getting a scholarship	14%	2
To improve my changes of getting an internship	57%	8
Other reason(s): (please describe)	7%	1
Total Respondents: 14		

#	OTHER REASON(S): (PLEASE DESCRIBE)	DATE
1	To gain some exposure to the software being used	5/12/2021 12:43 PM

## Q2 If these workshops were offered as one-unit courses (at \$46 per unit), would you take the course or recommend it to another student?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	50%	7
No	14%	2
Maybe	36%	5
TOTAL		14

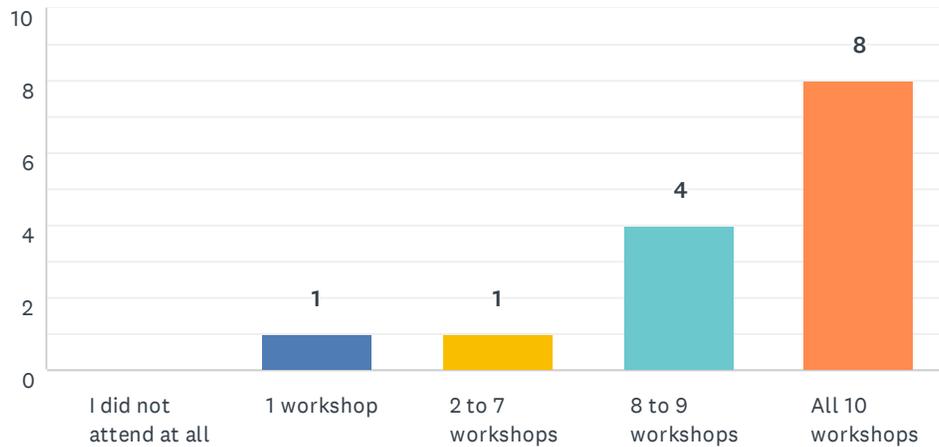
## Q3 Briefly explain your decision to the question above:

Answered: 9 Skipped: 5

#	RESPONSES	DATE
1	<b>Maybe</b> It would depend on my class schedule. I would not want to overload my semester because of the workshop.	5/25/2021 1:09 PM
2	<b>Yes</b> It is a great opportunity to acquire skills that would benefit an engineering student overall.	5/22/2021 10:51 AM
3	<b>No</b> They were helpful, but you can find the resources online.	5/20/2021 9:06 AM
4	<b>Yes</b> It's worth taking it. And I will recomend to be added into the classes schedule	5/17/2021 9:27 PM
5	<b>Yes</b> Class was very informative for my future career in engineering, I'm planned by either structural or mechanical engineering, and the workshops helped me learn more about cad modeling	5/17/2021 8:27 PM
6	<b>Yes</b> Ansys will be useful for anyone going into any university in engineering and most use ansys in their courses	5/17/2021 10:24 AM
7	<b>Yes</b> If the class was on campus in a computer lab that had all the software we needed to complete the class, I would definitely take it.	5/17/2021 9:32 AM
8	<b>Maybe</b> Some of the software used during the workshops are actually part of an existing course.	5/12/2021 12:43 PM
9	<b>No</b> It was great as a workshop but it is too broad and slow paced to be a payed course.	5/12/2021 12:40 PM

## Q4 How many Engineering workshops did you complete by attending live or by watching the recordings and submitting your responses)?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
I did not attend at all	0.00%	0
1 workshop	7.14%	1
2 to 7 workshops	7.14%	1
8 to 9 workshops	28.57%	4
All 10 workshops	57.14%	8
<b>TOTAL</b>		<b>14</b>

## Q5 Why did you decide not to attend any workshops?

Answered: 0 Skipped: 14

#	RESPONSES	DATE
	There are no responses.	

Q5 was only asked when Q4 = "I did not attend at all"

## Q6 Please explain why you only attended once.

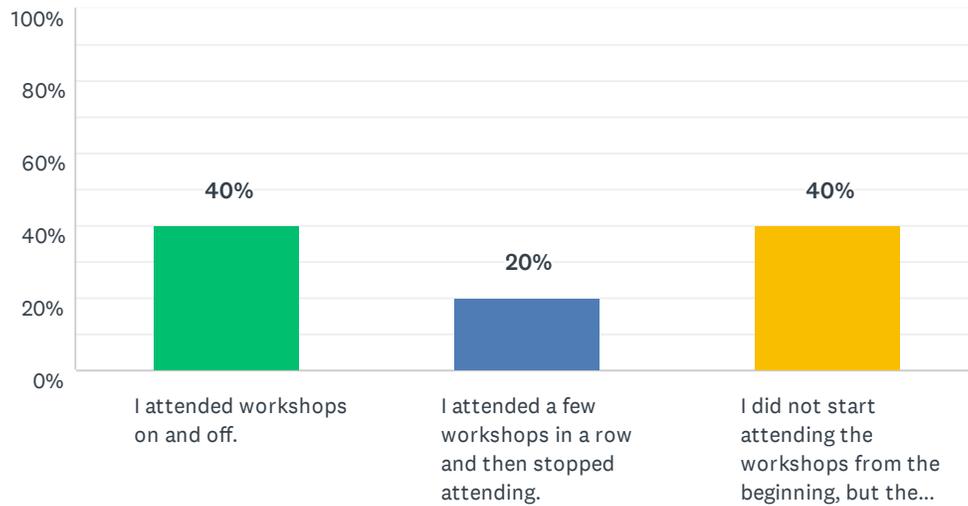
Answered: 1 Skipped: 13

#	RESPONSES	DATE
1	Needed to learn new skills	5/17/2021 9:27 PM

Q6 was only asked when Q4 = "1 workshop"

**Q7 Please select the option that best reflects your experience attending the Spring 2021 Engineering workshops:**Note: Watching a workshop recording and responding to the questions counts as an attendance.

Answered: 5 Skipped: 9



ANSWER CHOICES	RESPONSES	
I attended workshops on and off.	40%	2
I attended a few workshops in a row and then stopped attending.	20%	1
I did not start attending the workshops from the beginning, but then attended the rest (or most).	40%	2
<b>TOTAL</b>		<b>5</b>

Q7 was only asked when Q4 = "2 to 7 workshops" OR "8 to 9 workshops"

## Q8 Please explain why you attended workshops on and off.

Answered: 1 Skipped: 13

#	RESPONSES	DATE
1	Sometimes I wouldn't have time due to conflict with my work schedule.	5/22/2021 10:53 AM

Q8 was only asked when Q7 = "I attended workshops on and off"

## Q9 Please explain why you stopped attending after completing a few workshops?

Answered: 1 Skipped: 13

#	RESPONSES	DATE
1	Got busy with other commitments.	5/20/2021 9:07 AM

Q9 was only asked when Q7 = "I attended a few workshops in a row and then stopped attending"

## Q10 Please explain why you did not attend from the beginning, but then completed the rest (or most).

Answered: 1 Skipped: 13

#	RESPONSES	DATE
1	I attended 9 out of the 10 workshops. I could not attend the first workshop because the workshop took place at a time that could not fit in my schedule. However, I attended the rest of the workshops.	5/12/2021 12:46 PM

Q10 was only asked when Q7 = "I did not start attending the workshops from the beginning, but then attended the rest (or most)"

## Q11 What motivated to attend all 10 workshops?

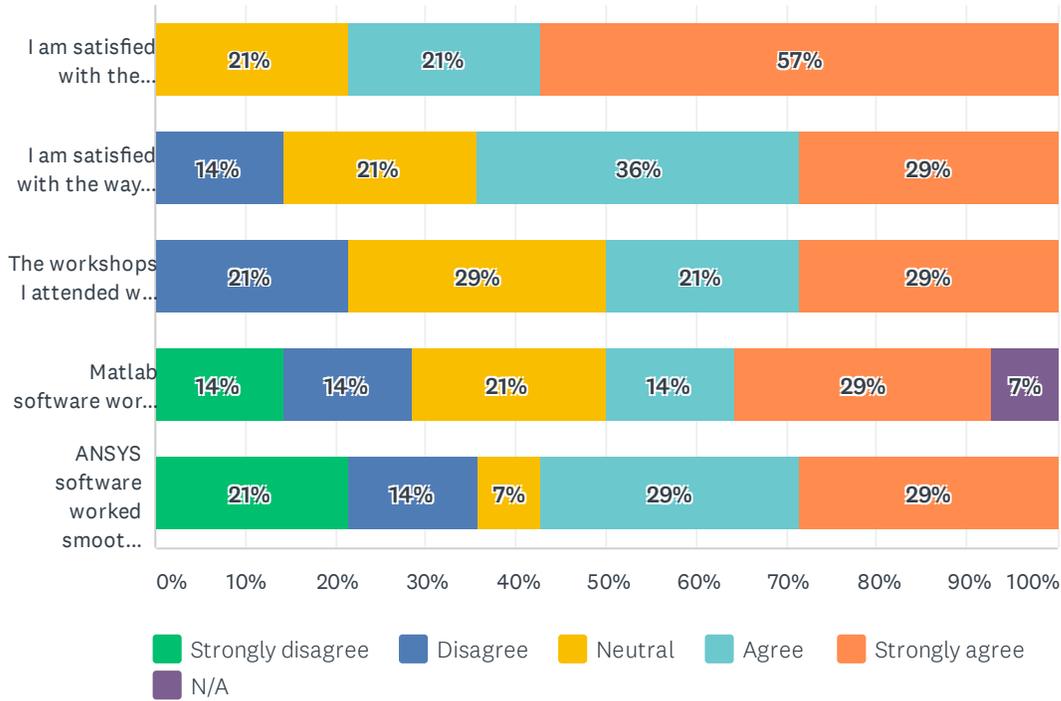
Answered: 7 Skipped: 7

#	RESPONSES	DATE
1	Extra credit was given for two of my classes (ENGE 116 and ENGE 210) and the learning of Ansys and Matlab.	5/25/2021 1:10 PM
2	I wanted to learn and get the certificate of participation	5/20/2021 8:49 AM
3	To learn more about the programming were used in the workshops. To be honest a lot of the workshops were confusing, but some of it was quite adaptable to understand since it physics was been used.	5/17/2021 8:30 PM
4	The next engineering class I needed was full so this was a great opportunity to receive the knowledge anyways.	5/17/2021 11:59 AM
5	The program is beneficial to me and part of my interests. It was fun learning the program.	5/17/2021 10:25 AM
6	I wanted to learn about engineering software that is used in the professional workplace.	5/17/2021 9:47 AM
7	I joined so I wanted to continue, the stuff we did was pretty interesting. We got to learn how to do certain specific stuff, not necessarily what does what, and why everything that is happening happens, which is useful and cool.	5/12/2021 12:41 PM

Q11 was only asked when Q4 = "All 10 workshops"

## Q12 Rate your agreement with the statements below:

Answered: 14 Skipped: 0



	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE	N/A	TOTAL	WEIGHTED AVERAGE
I am satisfied with the content learned by participating in the workshops.	0% 0	0% 0	21% 3	21% 3	57% 8	0% 0	14	4.36
I am satisfied with the way the content was taught in the workshops.	0% 0	14% 2	21% 3	36% 5	29% 4	0% 0	14	3.79
The workshops I attended were engaging.	0% 0	21% 3	29% 4	21% 3	29% 4	0% 0	14	3.57
Matlab software worked smoothly in my computer.	14% 2	14% 2	21% 3	14% 2	29% 4	7% 1	14	3.31
ANSYS software worked smoothly in my computer.	21% 3	14% 2	7% 1	29% 4	29% 4	0% 0	14	3.29

Q12 was only asked when Q4 DID NOT = "I did not attend at all"  
(All survey participants who attended the workshops at least once)

## Q13 If you would like to share additional comments about your satisfaction or engagement with the workshops or the software used, please enter them here:

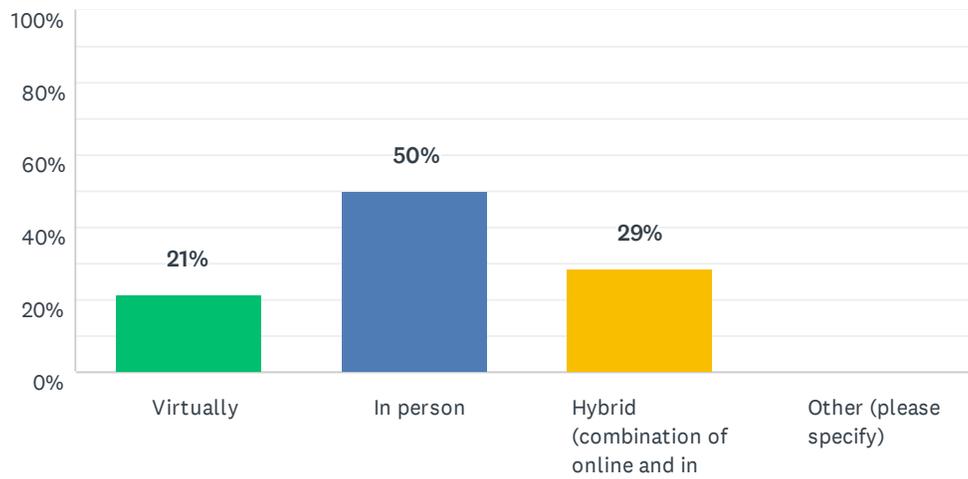
Answered: 5 Skipped: 9

#	RESPONSES	DATE
1	I was satisfied the workshop and the software was easy to use	5/17/2021 9:29 PM
2	Ansys wasn't working for the first week so I had to go on YouTube on how to solve the problem.	5/17/2021 8:30 PM
3	The Matlab was hard to obtain. I enjoy the class but it will be more helpful in person. Was hard to ask questions about the software when you are only in the screen.	5/17/2021 10:28 AM
4	Overall, I am glad to have attended the workshops. Even though some of the software could not work on my device, I gained some insight about the software used and their functions.	5/12/2021 12:48 PM
5	People should be warned ahead of time that 1- ansys does NOT run on Mac, which most students use, and 2- both programs require VERY capable computers, and barely even start up on the average student computer. (Coming from a CS major and an avid consumer tech and laptop fan!)	5/12/2021 12:43 PM

Q13 was only asked when Q4 DID NOT = "I did not attend at all"  
(All survey participants who attended the workshops at least once)

## Q14 When the campus reopens for safe student return, what would be the ideal format to offer these workshops?

Answered: 14 Skipped: 0

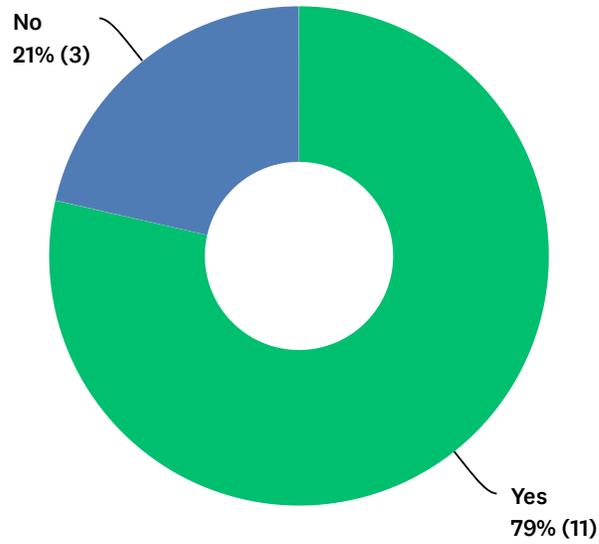


ANSWER CHOICES	RESPONSES	
Virtually	21%	3
In person	50%	7
Hybrid (combination of online and in person)	29%	4
Other (please specify)	0%	0
<b>TOTAL</b>		<b>14</b>

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

### Q15 Did you access any of the workshop recordings posted to the Innovation Research Lab (IRL) webpage?

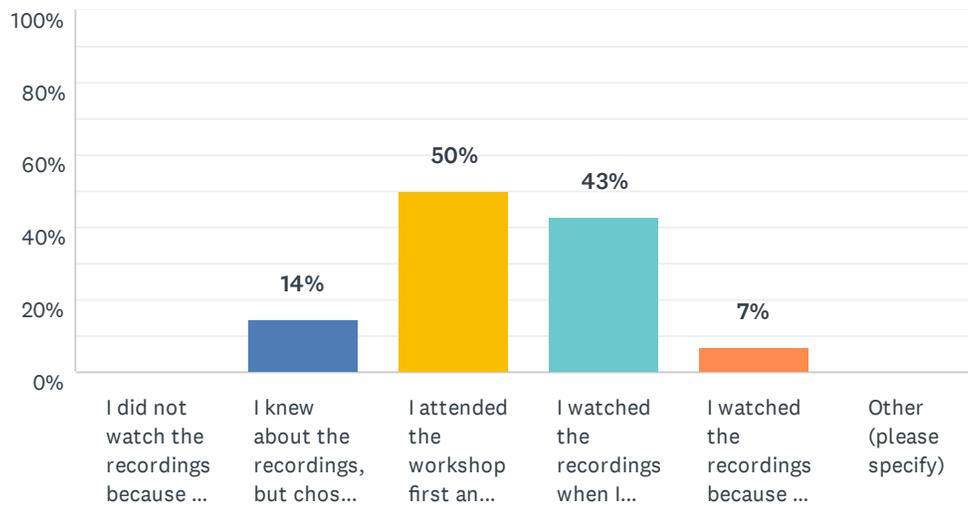
Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	79%	11
No	21%	3
TOTAL		14

## Q16 Select the options that describe your experience with the workshop recordings: [Select all that apply]

Answered: 14 Skipped: 0

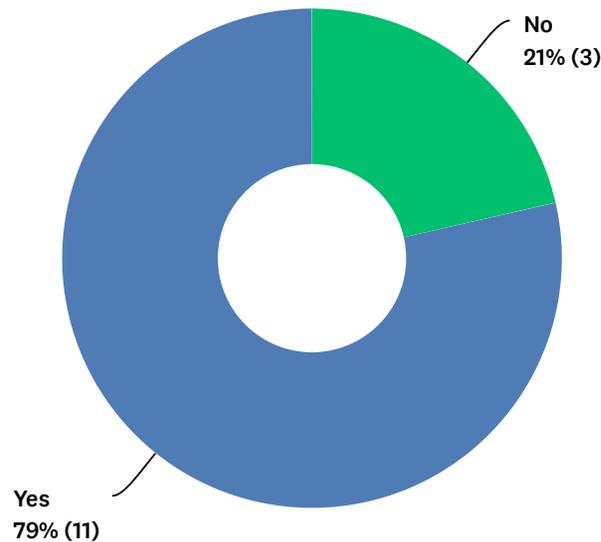


ANSWER CHOICES	RESPONSES	
I did not watch the recordings because I did not know they were available online	0%	0
I knew about the recordings, but chose not to watch them	14%	2
I attended the workshop first and watched the recording for review afterwards	50%	7
I watched the recordings when I missed a workshop	43%	6
I watched the recordings because I was not able to attend any of the live sessions	7%	1
Other (please specify)	0%	0
Total Respondents: 14		

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

**Q17 Is/would receiving a participation or attendance certificate valuable to your career path? If so, how? Note: Students who completed at least eight workshops received a certificate. Workshops could be completed by attending live or by watching the recordings and answering the questions.**

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
No	21%	3
Yes	79%	11
<b>TOTAL</b>		<b>14</b>

#	YES	DATE
1	I believe knowledge on Ansys and Matlab could be a strong asset to have when looking for an internship in my area.	5/25/2021 1:13 PM
2	It would serve as evidence for skills on a resume	5/22/2021 10:55 AM
3	it would help for future internship	5/20/2021 8:52 AM
4	I attended 8 weeks.	5/17/2021 9:31 PM
5	Because it shows that I completed something related to engineering, something that was challenging, and also because having a certificate in some the info like this is pretty cool to me.	5/17/2021 8:34 PM
6	It documents that I now know the information.	5/17/2021 1:32 PM
7	It gives me more skills to add towards my engineering career.	5/17/2021 11:08 AM
8	It will show the interest and skills leaned in a resume or university application.	5/17/2021 10:31 AM
9	Yes, because it demonstrates a basic proficiency in engineering software that I could add to my resume.	5/17/2021 9:48 AM
10	The certificate would be evidence that I have gained some exposure to some software used in Engineering.	5/12/2021 12:50 PM

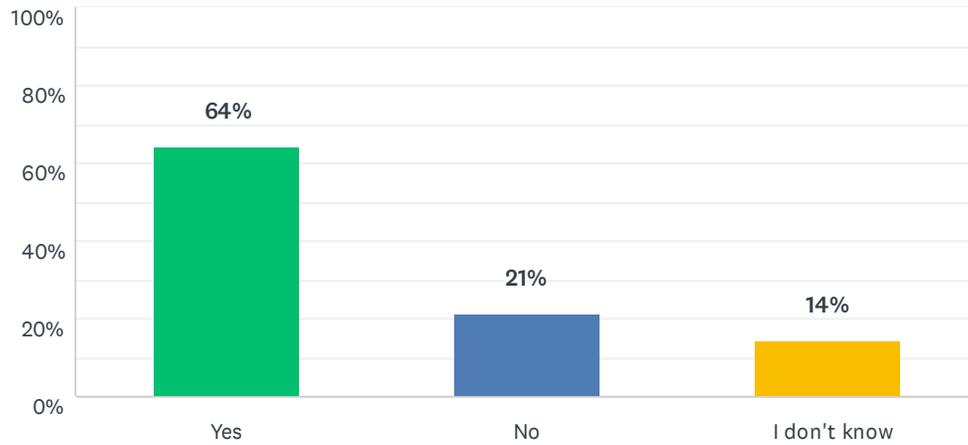
11 The certificate is valuable to my resume and career hunt but only if I actually focused and learned stuff on the zooms.

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5/12/2021 12:47 PM

## Q18 Do you identify as a low-income student?

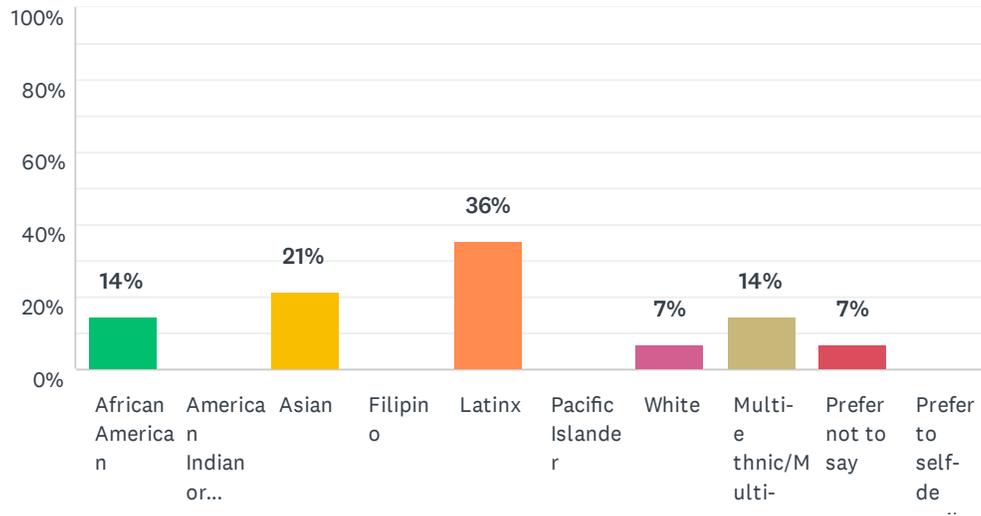
Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	64%	9
No	21%	3
I don't know	14%	2
<b>TOTAL</b>		<b>14</b>

## Q19 Please select the ethnicity to which you most closely identify.

Answered: 14 Skipped: 0

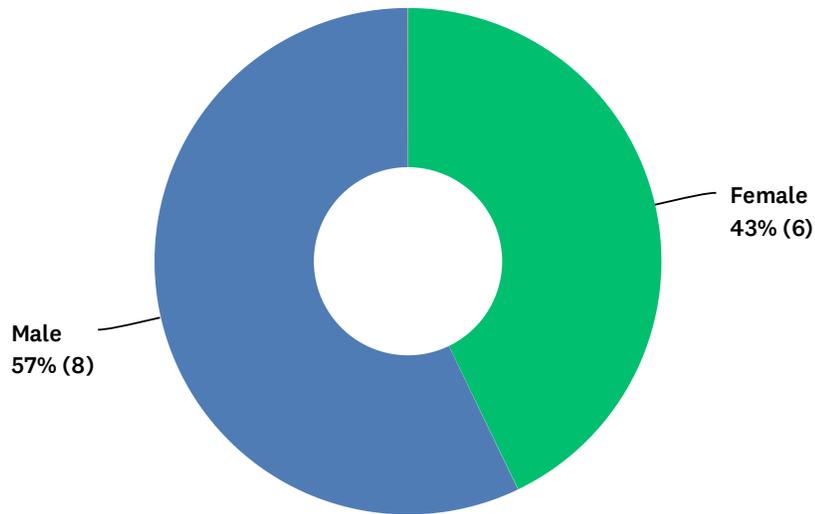


ANSWER CHOICES	RESPONSES	
African American	14%	2
American Indian or Alaska Native	0%	0
Asian	21%	3
Filipino	0%	0
Latinx	36%	5
Pacific Islander	0%	0
White	7%	1
Multi-ethnic/Multi-racial	14%	2
Prefer not to say	7%	1
Prefer to self-describe	0%	0
<b>TOTAL</b>		<b>14</b>

#	PREFER TO SELF-DESCRIBE	DATE
	There are no responses.	

## Q20 What is your gender?

Answered: 14 Skipped: 0

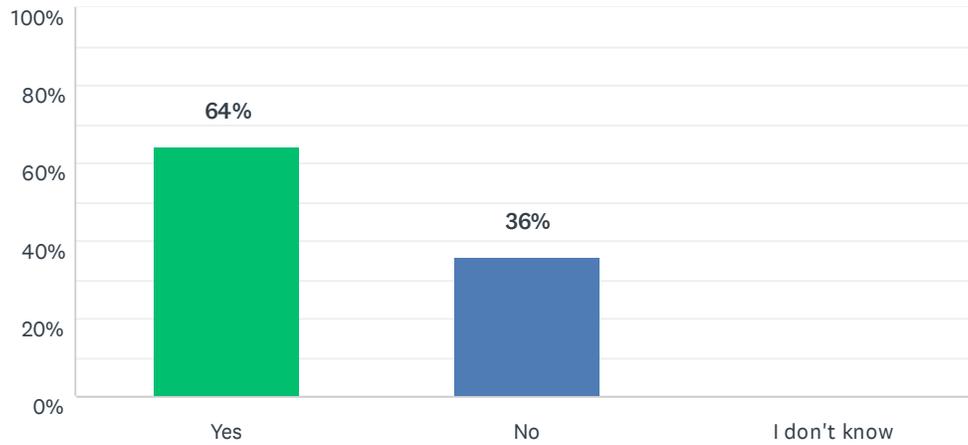


ANSWER CHOICES	RESPONSES
Female	43% 6
Male	57% 8
Non-binary / third gender	0% 0
Prefer not to say	0% 0
Prefer to self-describe	0% 0
<b>TOTAL</b>	<b>14</b>

#	PREFER TO SELF-DESCRIBE	DATE
	There are no responses.	

## Q21 Did any of your parents attend college?

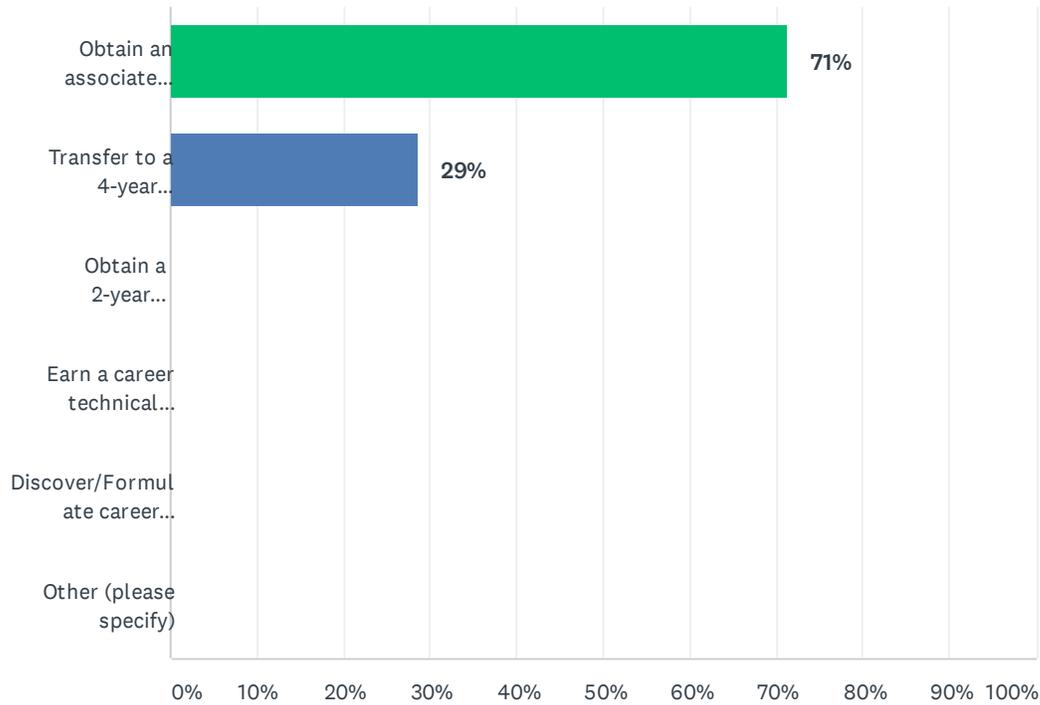
Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	64%	9
No	36%	5
I don't know	0%	0
<b>TOTAL</b>		<b>14</b>

## Q22 What is your current educational goal?

Answered: 14 Skipped: 0



ANSWER CHOICES	RESPONSES	
Obtain an associate degree and transfer to a 4-year institution	71%	10
Transfer to a 4-year institution without an associate degree	29%	4
Obtain a 2-year associate degree without transfer	0%	0
Earn a career technical certificate without transfer	0%	0
Discover/Formulate career interests, plans, goals	0%	0
Other (please specify)	0%	0
<b>TOTAL</b>		<b>14</b>

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

## Q23 What is your career goal? (what do you want to do when you achieve your educational goal)

Answered: 14 Skipped: 0

#	RESPONSES	DATE
1	I plan to work in the environmental engineering industry. I would also like to pursue a Masters and a PhD degree.	5/25/2021 1:14 PM
2	My career goal is to work as a Mechanical Engineer in the Aerospace industry.	5/25/2021 11:40 AM
3	Be in the biomedical engineering world and design prosthetics	5/25/2021 8:20 AM
4	Complete projects in several countries situated in Europe and South America.	5/22/2021 10:57 AM
5	To become skilled professional in the field I want to pursue.	5/20/2021 9:09 AM
6	work as an engineer	5/20/2021 8:57 AM
7	Find career that matches my skills	5/17/2021 9:33 PM
8	Developmental Real Estate	5/17/2021 8:36 PM
9	Build environmentally friendly transportation.	5/17/2021 1:33 PM
10	Work for a company specializing in the engineering field and develop technological advancements to improve ordinary life.	5/17/2021 11:11 AM
11	MECHANICAL ENGINEER. find a job related to my major.	5/17/2021 10:33 AM
12	Land a mechanical engineering career in the construction industry.	5/17/2021 9:51 AM
13	To become a Mechanical Engineer	5/12/2021 12:52 PM
14	Have my own business, make a lot of money and retire asap	5/12/2021 12:48 PM