



Prepared by the Engineering Student Council, Policy Committee
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26 January 2017

Breakdown of Survey Results on Efficacy of Center for Student Advising and The Need for Additional Portals for Student Advising

INTRODUCTION

The following report has been created as a resource to better understand how helpful Center of Student Advising Services is to our student body and in which ways it can be improved. The respondents were Undergraduate Students of School of Engineering and Applied Science. It compares the frequency of whom students get academic advice from and evaluates the benefits of such academic advice.

It also contains additional comments of Engineering Students on their opinions about Center for Student Advising.

METHODS

Student Survey

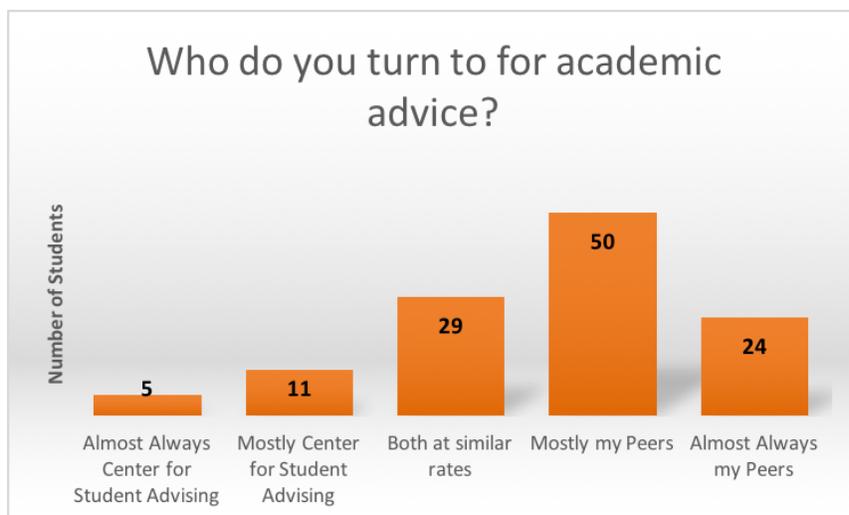
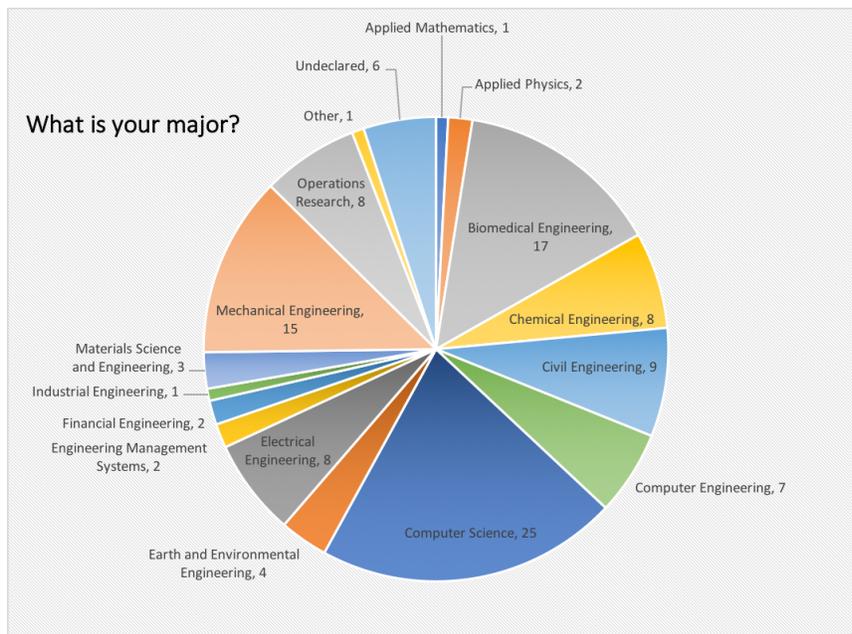
Engineering Student Council created a survey named "CSA Survey for SEAS Students" and shared it via listserv emails and Facebook posts. 119 undergraduate engineers participated in the survey and their answers were recorded and compiled to create the data on this report.

We asked them whom they turn to for academic advice and how helpful they found this advice to have a broad idea of efficacy of CSA and peer advising. We also asked participants about their majors to conclude major specific results on our analysis.

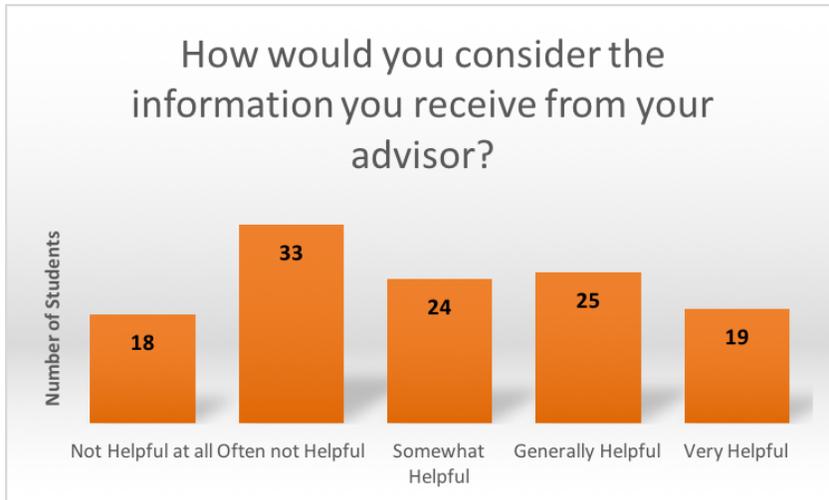
Finally, we asked them whether they find the current advising options sufficient and whether they would like to use an online portal to get advice from both their CSA Advisor and from their peers. Of course we left the last question for additional comments, which were very helpful in noticing trends amongst concerns of survey participants. The results of the survey and our discussion on it are below.

DATA & RESULTS

Below, is the data regarding the majors of students who filled this survey. While it does not suggest a definitive conclusion, we can observe there was more interest from Computer Science, Biomedical Engineering and Medical Engineering Students to complete the survey.

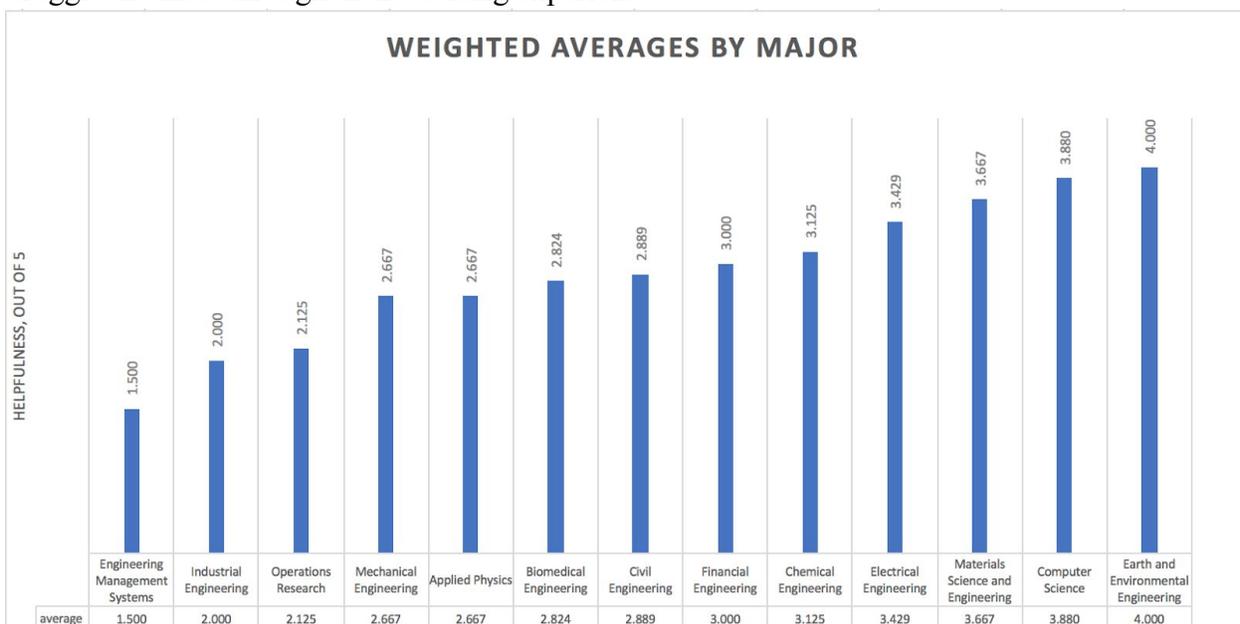


Data indicates students are more inclined to get advising from their peers rather than their CSA advisor or other resources of CSA. We can see that less than 14% of respondents are more inclined to get advice from Center for Student Advising.

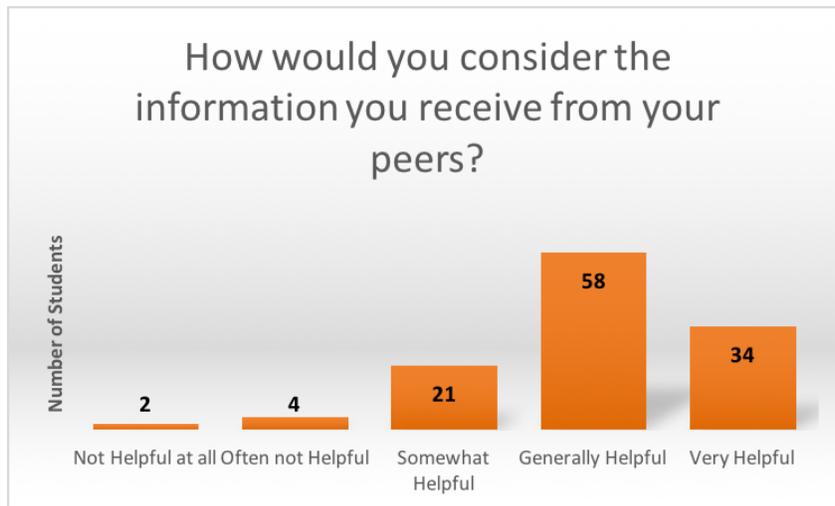


Responses to the question above indicates students' wide range of feelings towards the helpfulness of Center for Student Advising. However, we can observe that the weighted average of above responses is 2.95, which is just below 3, which indicates moderate usefulness.

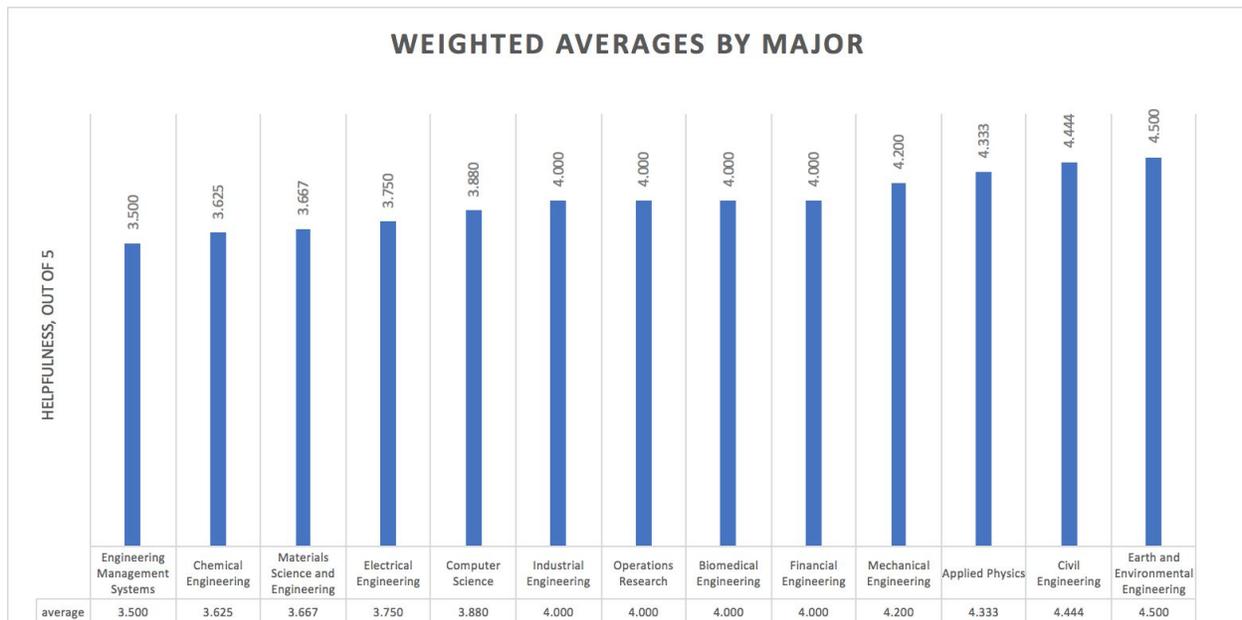
Data below shows the answers evaluating the helpfulness of information received by advisors specifically for each major. Three branches of IEOR Department, Engineering Management Systems, Industrial Engineering, and Operations Research have the lowest overall averages in terms of benefits of CSA advising. They are followed by Mechanical Engineering, Applied Physics, Biomedical Engineering, and Civil Engineering, with all of which, having weighted averages below 3. IEOR, Mechanical Engineering, and the Applied Physics students seem to struggle the most through their advising experience.



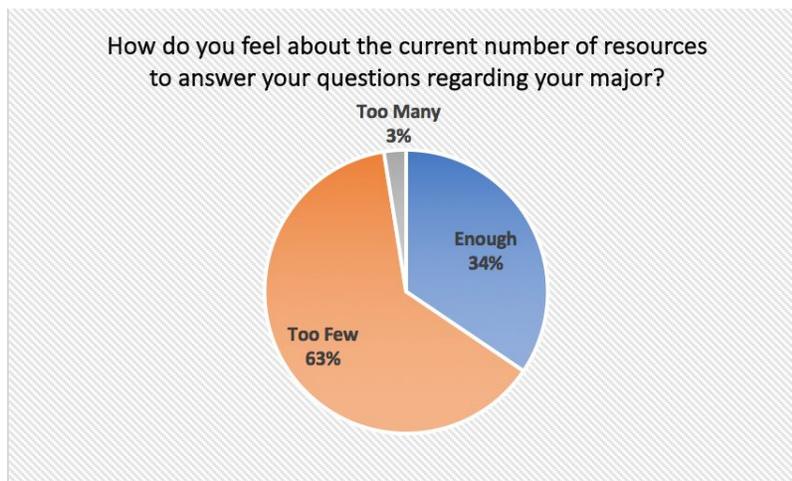
The data below shows the helpfulness of peer advising for Undergraduate SEAS students. There are only 6 responses (out of 119) below 3 to this question. Weighted average of responses is 3.99, 1.04 points greater than the weighted average of CSA Advisor helpfulness calculated above.



Similar to what we have done before, we evaluated the helpfulness of information received by advisor in specifically for each major. As you can see below, students majoring Applied Physics, and Mechanical Engineering are two of the top four across SEAS majors to find peer advising the most helpful. These same students were getting less help from the information received from their CSA Advisors. The data suggests that adding peer advising as an easily approachable option for undergraduate engineers would be a good solution to resolve their academic inquiries.



Above survey data shows that students find more help on the advising they receive from their peers than from their advisors. In order to increase communications between peers and stimulate continuous advising, ESC proposes the use of an online portal to find answers to advising questions. We also wanted to understand whether students are already satisfied with their current resources or whether they feel they need more channels for advising.

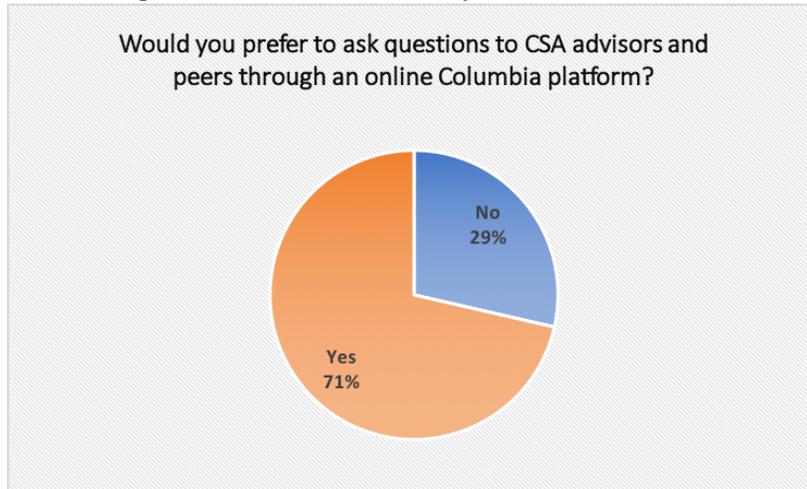


Data above indicates 63% of respondents believe the current resources are not enough to supply them with answers to their inquiries regarding their majors.

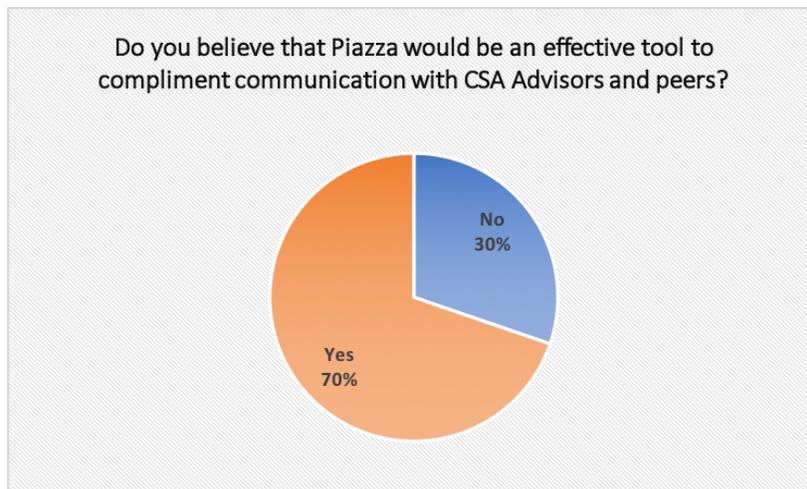
ESC proposes the initiative of using Piazza to enable students to input advice for their peers and underclassmen through an online platform. The initiative would help students find answers to their concerns in a much quicker way through this portal. The fact that answers can be found online would greatly decrease the workload of Career Advisors. Piazza has been proven to be a

successful platform for Columbia classes, and is used very frequently and effectively by students at all schools.

We wanted to learn whether undergraduate engineers want to use an online platform for their academic questions and whether they would think of Piazza as a right fit.



The responses to the first question indicate 71.2% of respondents do *prefer* to find answers to their academic questions through an online platform.



Similar to above results, 69.7% of respondents believe Piazza would be a helpful portal to seek responses to their academic inquiries both by advisors and students.

Finally, qualitative feedback was solicited through the survey. We asked for “Additional comments or any suggestions you would like to mention about your CSA experience?” The responses are presented below in an anonymous format. Submissions are presented below:

“My CSA advisor does not advise for my major which makes navigating my major difficult.”

“I did not know what probability class I had to take on first semester add drop period until the last day of add drop period when IEOR mailed every student. It was a very stressful period. Also, my advisor did not let me know beforehand I must take JAVA instead of Python for a CS minor. It took me tons of hours to make sure I got enrolled in Java at the beginning of this semester. I could have not entered the class, and the situation resulted in a lot of stress on me.”

“CSA would be improved through the use of student to student advising. This could be implemented using some online platform (perhaps facebook or piazza?)”

“I love my CSA advisor! It's fine, but I think they could be more helpful.”

“Frankly I have only ever received information from my advisor that has put me behind on my coursework. My advisor simply did not have the information I needed to most effectively accomplish my goals here. As a result, I have had to overload on classes this year, instead of having paced myself properly.”

“My CSA advisor, although in charge of many BMEs knows very little to nothing about engineering and it hurt me academically. Engineers, as a different school from CC, should get their own specially-trained advisors, maven as first year students.”

“For the CS major there's ten different sources of info and many are outdated (eg. many still say we need to take Computational Linear Algebra which hasn't been offered in many semesters). There needs to be one resource where we can get all of the information we need. Honestly, the Computer Science Facebook group is where I go to get my advising questions.”

“My biggest issue is that CSA often tells me to ask my faculty advisors. Therefore, what is the purpose of having CSA and faculty advisors working separately? Also, CSA was very unhelpful when initially figuring out my major.”

“The CSA advisors don't seem to know too much about the details - they always simply say to go to the major advisor.”

“The CSA is comically bad, and has very few resources to address the needs of mechanical engineering majors. We need more people who have experience in the engineering field being CSA advisers.”

“It's a fantastic resource but I think it's underutilized by most students, myself included, because it feels like an extra step that people don't usually think of taking.”

“Since the CCE is completely useless for anyone other than aspiring to careers in finance, consulting, or programming, maybe the CSA could provide major-specific career resources?”

“Haven't talked to a CSA advisor since sophomore fall (currently a senior) and my major

advisors have been little to no help. Most of my academic advising has been from peers.”

“Major advising should start earlier (before we declare) for those with more requirements/ or maybe all engineers.”

“My advisor is fab Erica Siegel 10/10 would recommend better communication between CSA and departments Professor were more active in my decisions no.”

“I normally go to my peers or recommendations and my advisor to make things work :) my advisor is awesome.”

“CSA refers me to my major advising. My major advising refers me back to CSA “I want specific class major advising.”

“Currently, my impression is that CSA is generally more geared toward CC and provides limited support for SEAS students. It is more useful for me to get advice from professors within my department and peers or upperclassmen who have had similar experiences first- hand.”

“Not at all. Who is my major advisor?”

DISCUSSION

Survey data clearly shows that there is a desire for additional advising channels. Additional comments of students indicate the CSA advisors often direct students to their major advisors however, with an online advising platform, students can find answers to all sorts of questions since earlier questions will be noted in the website history.

Comments such as “CSA refers me to my major advising” has been a common trend amongst participants. Whilst we acknowledge the help of major advisors, we believe that through an online academic Q&A platform, students would enjoy the comfort of finding answers to all of their solutions at a single source.

Piazza has proven to be a useful website for students to ask their questions within courses. Last semester, there were 13,000 questions asked on Data Structures in Java, within a semester. In the case of repetitive questions, a peer or an advisor can always link the student to the answer of an earlier question as it is done in every class using Piazza.

IEOR, Mechanical Engineering, and Applied Physics majors specifically are in dire need for a more efficient advising platform, and Engineering Student Council is confident that this can be provided through a Piazza advising platform supported by CSA Advisors and Columbia’s own student body.

ESC also acknowledges the peer advising systems already implemented at our peer institutions. Cornell University offers students from all majors specific multiple upperclassmen contacts to

get academic advice. While Cornell does not have a single online platform where students can ask academic questions, multiple major specific advisors are ready to answer students.

Additionally, concerns addressed on comments such as, “My CSA advisor does not advise for my major which makes navigating my major difficult”, can be minimized as students can find answers to all major specific questions through an online peer advising platform.

Another concern of many students is the problems they face through course registration and how unclear the requirements get at some points. Following comments of respondents highlight this issue: “For the CS major there's ten different sources of info and many are outdated ... There needs to be one resource where we can get all of the information we need”, “I did not know what probability class I had to take... Also, my advisor did not let me know beforehand I must take JAVA instead of Python for a CS minor. It took me tons of hours to make sure I got enrolled in Java ... the situation resulted in a lot of stress on me.”

The mentioned comments also highlights the stress generated over students when they cannot find answers to their inquiries at the same time they think of them. Students need to wait multiple hours to communicate with their advisors and the ambiguity of their concerns induce stress in the meantime.

Engineering Student Council acknowledges the current resources such as bulletin, department FAQs and the engineering website, but we believe the Piazza page can be a core and valuable addition. As the data above reflects, 63% of the students who responded to the survey feel current resources are not enough to answer their questions regarding their majors.

With an online Piazza page, students can generate new questions and with the benefit of the live Q&A environment, they can find answers to their custom questions at all times. The concept is similar to a live chat on a website, except thousands of students and tens of academic advisors are on the other side of the chat instead of a corporation’s single Human Resources personnel. Also, the generated database will be immense and will include more customized inquiries.

With the implementation of a Piazza page, and the assistance of CSA Advisors going through the generated information, student body can better navigate their major and course selection, and find answers to their academic questions 24/7. This platform would minimize the amount of time it takes for students to reach answers and relieves students from the stress such situations generate.

ACKNOWLEDGEMENTS

ESC thanks all of those who participated in the survey.

WORKS CITED

1. Engineering Student Council. 2017. "CSA Survey for SEAS Students." *Google Forms*.

January 26. Accessed January 26, 2017.

https://docs.google.com/a/columbia.edu/forms/d/1qiEs6I67HHWgJ2ed7Eklypv141xzECIWETe0_N2jPQw/edit?edit_requested=true#responses.

2. Engineering, Cornell. n.d. Cornell Engineering Peer Advisors. Accessed February 14, 2017.

<https://www.engineering.cornell.edu/academics/undergraduate/assistance/peer/advisors/>.