Jeff Anderson's ENGR 11 Exam 1 Corrections
Winter 2020 Student Feedback and Suggestions for Improvement

> "The teacher is no longer merely the-one-who-teaches, but one who is him/herself taught in dialogue with the students, who in turn while being taught also teach. They become jointly responsible for a process in which all grow." -Paulo Freire

Some of my favorite quotes about education, like the one above, come from the Brazilian educator and philosopher Paulo Freire, best known for his book *Pedagogy of the Oppressed*. That book, written in 1968, critically explores education in the context of socially oppressive systems.

Freire posits that traditional pedagogies depend on and maintain oppressive systems via the banking model of education. This banking model treats each student as an empty vessel and assumes that teachers must deposit knowledge into each student in order for students to learn. Freire argues that such an approach actively guides students to avoid critical thinking. This, in turn, promotes a model where students do not feel ownership over the knowledge they build, which reinforces oppression.

In contrast to the banking model of education, Freire suggests that educators do better when we engage with learners in a co-creative process of knowledge building. He emphasizes that one of the most meaningful ways to engage with students is through conversation. This ongoing dialog between teacher and student should not focus on one person (the teacher) **acting on** the other person (the student). Instead, the dialog between teacher and student should involve both people **working with** each other to create knowledge.

One of the ways that I create and maintain an ongoing dialog with my students is to ask students to reflect on their experience in my classes. Student reflections are a very powerful part of my teaching practice. I find this data invaluable for my own growth as an instructor and for working to create more equitable classrooms.

With this in mind, I hold the following attitude: A student in my class knows a lot more about me as a teacher than I do. My perspective as a teacher is limited to what I see with my own eyes. But, so much of the learning in my classes happens when I am not in front of my students. And, I am highly biased. By the time a student is sitting in front of me, I have spent tens if not hundreds of hours building a class and have a deep emotional connection to what I think is going to happen.

But, the reality is, 100% of the impact my decisions make on students is determined by how the students experience my efforts. Thus, I recognize that students know a lot more about how my classes run and about the student experience in my class.

With these ideas in mind, each quarter I administer 1 – 4 quality control surveys in each of my classes. Each survey asks students to reflect on a number of questions. Some of these questions are designed to inspire intrapersonal exploration (i.e. asking students to reflect on their own learning). Other questions are designed to invite students to give me targeted feedback about my efforts as their instructor.

When student submit these reflections, I read through each response carefully and try to choose a selection of ideas that I want to capture and reflect on more broadly. I then create a centralized document to store the lessons I learn from each quality control survey in each class

Below are some examples of comments that my Engineering 11 students offered to me during winter 2020 as a part of my exam.1 corrections process.

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

What's challenging about this course is that I have so many things on my shoulders this quarter. DeAnza College where I am mainly am does not offer any engineering course while Foothill college does but mostly in winter quarter. So I had no option but taking all of the engineering courses I need in order to transfer. I had to admit that I did not sleep much and well it turned out this class is the one class I am struggling because for me coding and the concepts behind take time to sink in. I think you have always helpful and eager to help, it is more on my part than yours. I realize the important of MATLAB and computational analysis thank to you and lab 3 but I don't think I'm ready to learn MATLAB properly this quarter. -L.A. #4

Make lectures more engaging by having groups solve problems. -Z.B. #7

My biggest challenge is time management. Apart from labs, we don't have any other homework so it is up to students to properly manage time and to complete all of the "suggested problems." I definitely think those problems are… actually required. I know there was a huge difference in my understanding from Lessons 1 & 2 when I did the problems and Lessons 3 & 4 when I did not do the problems. -J.F. #28

This is my first coding class. I just not used with the coding part so to learn coding will take more time than the average student. -M.B.G. #31

I think it's a little hard to prepare for exam as there is no specific chapter listed on exam preparation such as math. -K.H. #34

I think this class may be… difficult for those that have limited experience programming. Lab 4… seems to be two different labs in one. I think that spacing it out in the future would be a better idea , part 3 of that lab should be added to lab 3 instead of lab 4. -N.K. #40

As you know I am an international student who is not good at English as native. In the class, there are sometimes I can not understand what the professor told or what is going on the class. However, I think it does not matter because my professor already have the YouTube channel and I can visit to review the chapter or materials I missed in the class.

The most challenging part is coding because I have not taken coding class before. I think I am the only one who had no experience with the coding. I need more time to do the lab reports because I am taking other classes. -S.L. #43

Knowing the difference between single and double, maybe address to the class what data class is considered a single or double. -E.L. #46

Writing code is my major challenge since I took my last coding class in high school. I need time to get the feeling of coding back. As result, I usually spend multiple hours on lab assignments. I think clear lab instructions and some sample code are very helpful. -J.P. #49

This course is challenging because the due date for assignments are spread out so it is easy to push off the assignments in favor of something else that is due tomorrow. I would like a lab or two where due date of some parts of the lab is in a week instead of two. For example, lab 3, with the articles, data table and simple pendulum derivation, could have the articles checked for completion in one week and the second week the whole lab can be due. This can help keep the assignment more current to compete with homework from other classes (life such as job or math class). -K.Q. #52

The depth of the computer science subjects is a bit daunting. Not bad, just more depth than expected. -C.T. #64

Honestly, I believe my challenge comes from this class paired with all of my other classes. The instructor does a good job of keeping deadlines fluid for those who have other things going on; however, especially since I learned this material in the beginning of the quarter with a different instructor, it's hard to pay attention sometimes with the slow pace. This problem might stem from the wide range of knowledge levels among the students of the class. -M.T. #67

Preparing for exams is challenging because this class implements an integration of online and paper environments. It is difficult to draw the separation line between what is expected of me to know via pen + paper versus the unaccessible online environment in MATLAB when preparing for a closed computer exam.

I struggle with command window because I am not a strong coder, nor am I even remotely confident with MATLAB syntax because we really only use MATLAB as a checking environment for our pen + paper analysis. If the online workspace could be used for exams it would benefit the class to apply material literally being learned for that domain specific software space. -N.T. #70

What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

I appreciate that you have a YouTube channel and website with great resources that I can always refer back to even after this quarter is over. This class is helping me learn how to teach myself MATLAB with the resources available. -Linh A.

Video, live streaming- perfect asset for study. I love how you can review everything after.
TA- Derek is perfect buddy to study with and (support) learning is amazing thing. -Z.B. #7

I appreciate that Jeff is taking the time to get us to really learn the material. Very few professors allow test corrections which give students an opportunity to go back and really understand the material they missed.

I also really think the structure of the course is interesting and not what I expected at first. We are speading a lot of time learning MATLAB foundations. This will lead to a solid understanding of the framework. I thought that this course would be much more heavy in the syntax department but it's not, which I think is ok because of the vast library of documentation in the program. -J.F. #28

I love the appliedlinearalgebra.com website. There rarely available who teaches and provides their lectures and other interesting stuff in an easy-access website. The website provides the notes that I missed ruing class that easen my study. -M.B.G. #31

I think the material Jeff taught us in recent lectures is quite helpful, especially the graph using MATLAB. -K.H. #34

I think the videos and resources you have outside of class are very useful as it gives a way to work on thing and review without having to necessarily have you there all the time.

I also think introducing how to use documentation is also very useful because that how I've learned programming.

I think you should continue to expand on these resources, and refine the labs more, and have them available in advance so that students are able to get a head start and know what is coming beforehand. -N.K. #40

I like my professor teach the whole foundations of computer coding structure which is heling students to understand how the computer works and how the coding works. I thought I am going to learn the MATLAB syntax in this class, but he encourages the students becoming active learners.

It is tough for me to searching the syntax which is required in lab reports. It seems like other students already well know or familiar with the coding syntax so that they do not need much time to coding. I hope the professor provides the required syntax documents for each lab reports or we have a time to be familiar with syntax in class. -S.L. #43

I really like how the lectures are live streamed and uploaded onto YouTube. Reviewing YouTube videos when I get home is really helpful. I guess to continue to upload the live stream onto YouTube. -E.L. #46

Live Streaming is definitely a good idea. It enables us to learn course material repeatedly wherever we are. Handouts are also useful learning resources. It would be better if our instructor post ket to suggested problems. -J.P. #49

I appreciate the effort Jeff puts in to make sure we have all the resources we need to do the labs. This includes the prompts, the lecture streams for notes, the free lab time to ask for clarifications, etc… The lecture streams help me learn because they are a more permanent way to access bits of missed lecture. I would like for the instructor to continue posting up the streams and to continue streaming during class for reference later. -K.Q. #52

The depth of this class is both its worst point and best point. -C.T. #64

There are many aspects of this class that I appreciate. To start, every resource I can think of is readily available to me via the website, including extra practice, videos of lectures, written notes, calendar of dates, suggested reading, etc. The instructor makes himself available for questions whenever the student needs him to be. I would say availability in every aspect of the class is one thing the instructor should fight to maintain.

I also do like the way lectures are held. Going step by step on the doc cam with pen and paper is actually a very clear way to show how problems are done and how certain concepts come to be. I would say that is a good presentation method to keep. Also, the fact that the instructor stops every once in a while and lets students do a problem on their own. -M.T. #67

The flexibility of having recorded lecture content is highly conducive for my learning needs. There have been a few technical errors but they have minimally impacted my learning trends. I enjoy the pen + paper analysis but I wish we had more time to connect and apply to the MATALB interface, especially on exams. When I study I always have MATLAB open and sometimes it is hard to anticipate course material on exams when in class and at home we are utilizing the online platform. -N.T. #70

Name: **Engineering II : Winter 2020** | Exam 1 Reflections |

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

✓ What's challenging about this course is that I have so many things on my shoulder this quarter. De Anza College where I mainly am does not offer any engineering courses while Foothill College does but mostly in winter quarter. So I had no option but taking all of engineering courses I need in order to transfer. I had to admit that I did not sleep much and well It turned out this class is the one class I am struggling because coding and the concepts behind take time to for me sink in. I think you have always helpful and eager to help, it is more on my part than yours. I realize the importance of MATLAB and computational analysis thank to you and lab 3 but I don't think I'm ready to learn MATLAB properly this quarter.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class? ✓

✓ I appreciate that you have a Youtube channel and a website with great resource that I can always refer back to. even after this quarter. This class is helping me learn how to teach myself MATLAB with resources available. I think the instructor Jeff does the best that he possibly can. It's just the matter of students who want to take advantage of the resources or not.

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

~~Syntax~~ ~~makes so~~

Makes ~~more~~ lectures more engagging
by meoving groups to solve problems
→ Math or Syntax
Group Projects - believe this thing
is very vallid skill, skill of convening in team.

after I get my videos done, I will do this

The next major goal I have in my teachy
is to learn how to effectively use groupwork during in class presentations

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

1. <u>Video, live streaming</u> - perfect asset to study. I love how you can review everything after

1. <u>TA</u> - Deven is perfect buddy to study with and student to student learning is amazing thing

Name: _J. F._ Class #: 28

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

My biggest challenge is in time management. Apart from labs we don't have any other homework so Its up to students to properly manage time and to complete all of the "suggested problems". I definitly think that those problems are not to be suggested but actually required. I know that there was a huge difference in my understanding from lesson 1 & 2 which I did the problems verses lessons 3 & 4 which I did not.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class? I appreciate that Jeff is taking the time to get us to really learn the material. Very few professors allow test corrections which gives students an opportunity to go back and really understand the material that they missed. I also think that the structure of the course is interesting and It is not what I expected at first we are spending alot of time learning MAT LABS foundation. This will lead to is getting a solid understanding of the framework. I thought that the course would be much more heavy in the syntax department but Its not. Which I think is ok because of the vast library of documentation in the program.

Name: M. E. B.   Class #: 31

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

This is my "first" class of coding. Actually, my first class was CS 2A (C++) but I did not study anything from that class. The ~~proffe~~ professor actually had done a lot for me. but I just not used to with the coding part so to learn coding will take more time than average student.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

I love the "appliedlinearalgebra.com" website. ~~Not~~ ~~off~~ ~~tea~~ There rarely available who teaches and provides their lectures and other interesting stuff in an easy-acces website. The website provides me the notes that I missed during class that easen my study.

Last Updated: 3/12/19 6:38 PM

⑨

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

I think it's a little hard to prepare for exam as there is no specific chapter listed on exam preparation. such as math.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

I think the material Jeff taught us in recent lectures is quite helpful, especially the graph using matlab.

spend more time thinking about each problem to avoid making mistakes in solving the wrong problem.

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

Personally I don't find too much in this course that is unreasonably challenging, I think that a majority of what is tested on and expected from labs is reasonable for me, but I think that it may be more difficult for those that have limited experience with programming. I'm writing this while I'm partway through Lab 4 and I can say that it is somewhat challenging for me, especially since it seems to be two different labs in one. I think that spacing it out in the future would be a better idea, part 3 of that lab should be added to lab 3 instead of lab 4.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

I think the videos and resources you have outside of class are very useful as it gives a way to work on things and review without having to necessarily have you there all the time. I also think introducing how to use documentation is also very useful because that how I've learned programming. I think you should continue to expand these resources, and refine the labs more, and have them available in advance so that students are able to get a head start and know what is coming before-hand.

Name: _____S.L._____   Class #: 43

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

Knowing the difference between single and double, maybe address to the class what data class is considered. a single or double.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

- I really like how the lectures are live streamed and uploaded to youtube.
- Reviewing the youtube videos when I get home is really helpful.
- I guess to continue to upload the live stream onto youtube.

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

Writing code is my major challenge. Since I took my last coding class in high school, I need time to get the feeling of coding back. As a result, I usually spend multiple hours on lab assignments. I think clear lab instructions and some sample code are very helpful.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

Live streaming is definitely a good idea. It enables us to learn course material repeatedly wherever we are. Handouts are also useful learning resources. It would be better if our instructor can post key to suggested problems.

Name: J. P.   Class #: 49

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

The course is challenging because the due date for assignments are spread out so it is easy to push off the assignments in favor of doing something else that is due tomorrow. I would like a lab or two where the due date of some parts of the lab is in a week instead of two. For example, Lab 3, with the articles, data table and simple pendulum derivations, could have the articles checked for completion one week in & the second week the whole lab can be due. This can help keep the assignments more current to compete with homework from other classes/life such as a job or math class.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

I appreciate the effort Jeff puts in to make sure we have all the resources we need to do the labs. This includes the prompts, the lecture streams for notes, the free lab time to ask for clarifications, etc.... The lecture streams help me learn because they are a more permanent way to access bits of missed lecture. I would like for the instructor to continue posting up the streams and to continue streaming during class for reference later.

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

the depth of the Computer science subjects is a bit daunting. not bad, just more depth then expected.

A.K.A.   don't change a thing!

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

the depth of the class is both its worst point and best point.

I have no suggestions at this time

4. **What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?**

Honestly, I believe my challenge comes from this class paired with all of my other classes. The instructor does a good job of keeping deadlines fluid for those who have other things going on; however, especially since I learned this material in the beginning of the quarter with a different instructor, it's hard to pay attention sometimes with the slow pace. This problem might stem from the wide range of knowledge levels among the students of the class.

5. **What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?**

There are many aspects of this class that I appreciate. To start, every resource I can think of is readily available to me via the website, including extra practice, videos of the lectures, written notes, calendar dates, suggested reading, etc. The instructor makes himself available for questions whenever the student needs him to be. I would say "availability" in every aspect of the class is the one thing the instructor should fight to maintain. I also do like the way the lectures are held. Going step by step on the doc cam with pen and paper is actually a very clear way to show how problems are done and how certain concepts come to be. I would say that is a good presentation method to keep. Also, the fact that the instructor stops every once in awhile and lets the students do a problem on their own - that is a big help.

EXAM REFLECTION INSTRUCTOR ASSESSMENT QUESTIONS:

11. What is challenging about this course? What suggestions do you have for your instructor to help you address your challenges?

Preparing for exams is challenging because this class impliments an integration of online & paper environment. It is difficult to draw the separation line between what is expected of me to know via pen + paper versus the unaccessable online environment in MATLAB when preparing for a closed computer exam. I struggle with command window evaluations because I am not a strong coder, nor am I even remotely confident with MATLAB syntax because we really only use MATLAB as a checking environment for our pen + paper analysis. If the online workspace could be used for exams it would benefit the class to apply material literally being learned for that domain specific software space.

12. What are the aspects of this class that you appreciate? What in this class is helping you learn? What suggestions do you have for your instructor for things that he should continue to do in order to help you learn in this class?

The flexibility of having recorded lecture content is highly conducive for my learning needs. There have been a few technical errors but they have minimally impacted my learning trends.

I enjoy the pen + paper analysis but I wish we had more time to connect & apply to the MATLAB interface, especially on exams. When I study I always have MATLAB open and sometimes it is hard to anticipate course material on exams when in class and at home we are utilizing the online platform.