

# Course Report (with Comments) for Summer 2024 - ENSC 470/ 894 Combo - Optical and Laser Engineering Applications, Shawn Sederberg

About the Course Report (with Comments): The purpose of this report is to provide a detailed look at student learning experience within one course. It displays student responses to the Course Experience (CE) survey common core and discipline question sets through means, standard deviations, response counts, and response distributions. You can find an overview of available CE Survey reporting here. Information in this report can be used as part of the tenure, promotion, and review process as well as for other professional development and/or course design discussions. Where information is used as part of teaching performance review, it must be applied within the scope of the appropriate collective agreement; Articles 28.5 to 28.15 in the SFU Faculty Association (SFUFA) collective agreement (2019-2022) and Articles XVIII C, D, E, J in the Teaching and Support Staff Union (TSSU) collective agreement (2019-2022). For SFUFA instructors who have chosen not to include student comments (Article 28.9) in their review, please use the "Course Report (No Comments)".

The Centre for Educational Excellence (CEE) provides consultations on course, curriculum design, and teaching practice and are available to help you interpret and apply student feedback from the CE Survey.

Access to this report is granted at the discretion of the academic unit (with the Managers of Academic and Administrative Services as the main point of contact) to those who need the information to fulfill their role responsibilities at SFU. Typically, this will include Chairs, Directors, and Deans as well as Associates in these roles. Managers of Academic and Administrative Services as well as Program Assistants may also need access.

Responsible data use: The CE Survey data primarily serves to inform reflective teaching practices, curriculum design and program development by integrating student feedback. It should not be the sole criterion for evaluating teaching or comparing instructors due to its lack of contextual details such as class size and student demographics.

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Creation Date: Friday, August 23, 2024

The following course sections were combined into one survey and report: Combined Sections: D100,G100

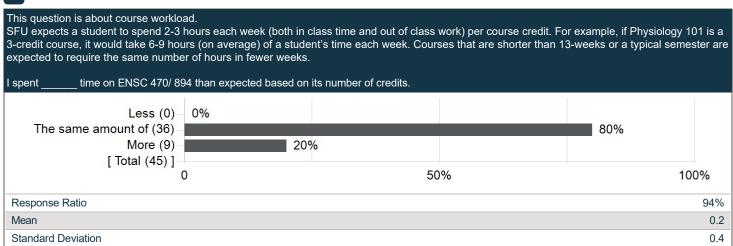
## Section 1 - Response Rate

Raters	Students
Responded	45
Invited	48
Response Ratio	94%

## **Section 2 – Common Core Questions**

These questions appear on all course experience surveys at SFU and are selected by the Provost.

# 2.1 Course Workload



The mean score summarizes the overall reported workload for this course and can range from -1 to 1. It is scored as: Less time than expected = -1, The same amount of time as expected = 0, More time than expected = 1, given the SFU definition of a credit. The closer the mean score is to 0, the more it means that students reported the workload to be the same as expected.

## 2.1b You responded as having spent the same amount of time on ENSC 470/ 894 as expected. Please explain.

### Comments

Being a 4 credit course, I expected a decent amount of work/assignments, including labs, for this course.

The amount of work that was required to complete the course was very fair, and I never felt like I was bored, or the opposite, struggling to keep up

Workload as expected, maybe slightly more than expected

I typically went to class, and I spent other time on assignments and labs outside of class. I invested more hours outside of class the week before the midterm.

Spending time doing homework, labs, and reviewing as same as the other 4 credit course

The in–course tutorial helps a lot to understanding the materials, so that I don't need much time after class to review most of materials. Just for Graduate student, the workload is a little heavier compare to undergrad student's, the extra project and presentation will take some time, but it is helpful for combining the in–class materials and interests together.

The lecture and lab component required roughly the same amount of time as expected.

expected amount doing assignments and labs

The class fulfilled the amount of hours I expected on a weekly basis.

Although the course materials are provided with good details, it still needs time to learn and practice since most are challenging topics.

As expected

I attended most classes albeit a few when I needed to study for exams

outside of class I did homework and re-reviewed materials to generate my own comprehensive notes on the subject

I spent the equivalent time studying and doing assignment/labs as my other classes

Since this is a 4 credit course I spent more time reviewing the course content and completing the questions.

Study, homework

Priority on other course

The lecture note is clear, but the content is complicated especially involving the practical problem

The course was very well taught and shawn is so nice.

Have to learn a lot of things that I had no knowledge about.

There were a lot of concepts to understand, and homeworks took a long time to finish

Lecture content was fairly times, labs took the longest amount as expected. Labs made it a 4 credit course load.

I think the amount of time I spent on the course was fair.

I spent maybe 8–12 hours a week on the class

workload was reasonable with lecture notes, labs and assignments

The course workload was fair for the content and credit amount

I study 1-3 hours per credit per week

Workload was a lot but not uncommon for 4 credit class

My response indicates that the time I dedicated to ENSC 470/894 aligns with the anticipated or standard amount of time expected for this course. This suggests that I have been managing my time well and staying on track with the course requirements and workload.

The assignments and lab and study required was about as expected for the amount of credits

The combination of labs and assignments (and a little bit of tutorials) took an appropriate amount of time.

because the course workload was well-structured and aligned with the syllabus

taking into account the 4 hrs of class per week, and the time i spent studying/doing homework i probably spent about 9 hours a week on 470

## 2.1b You responded as having spent more time on ENSC 470/894 than expected. Please explain.

## Comments

Had to review some concepts a lot more due to homework

The labs and homework took a bit longer than I was expecting.

The assignments are time consuming

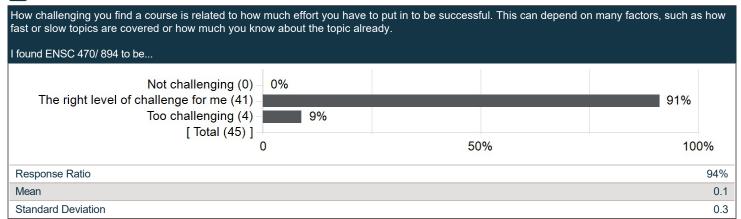
The lab reports and assignment questions are quite time consuming

I find that the assignments are quite long to complete and its takes some time to practice to understand the concepts and questions.

Course materials being quite abstract and hard to understand than initially expected

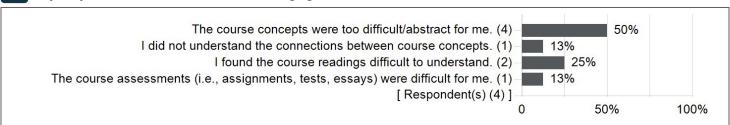
I spent more time on ENSC 470/894 than expected due to mixture of the number of tasks and the difficulty of the course materials, which required extensive weekly study.

# 2.2 Course Challenge



The mean score summarizes the overall perceived level of challenge for this course and can range from -1 to 1. It is scored as: Not challenging = -1, The right level of challenge for me = 0, Too challenging = 1. The closer the mean score is to 0, the more it means that students reported that the course was the right level of challenge for them.

## 2.2b Why did you rate ENSC 470/894 as too challenging?

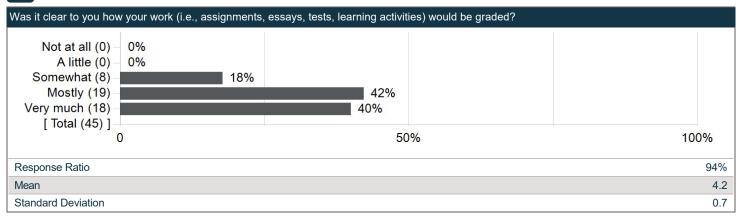


Note: Students were provided with a list of reasons to select with the option of adding an open-comment reason. Students could select multiple reasons.

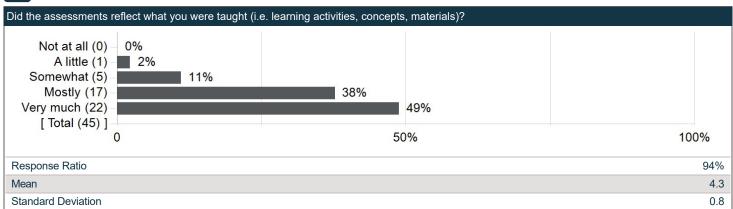
## 2.3 Assessments

For Q2.3a and Q2.3b, the mean score can range from 1 to 5. It is scored as: Not at all = 1, A little = 2, Somewhat = 3, Mostly = 4, Very much = 5

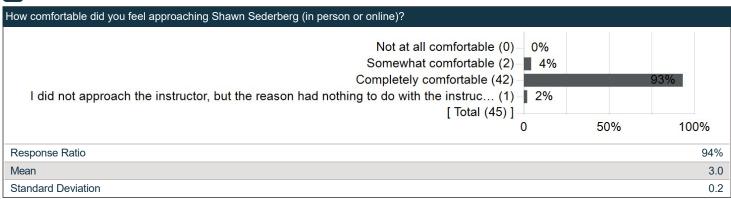
## 2.3a



# 2.3b



# 2.4 Comfort Approaching Instructor



The mean score summarizes the overall reported level of comfort approaching the instructor and can range from 1 to 3. In contrast with questions Q2.1 and Q2.2, 1 represents one end of the scale (Not at all comfortable), while 3 represents the other end of the scale (Completely comfortable). The middle of the scale is 2 (Somewhat comfortable). Responses for "I did not approach..." are excluded from the mean score.

## 2.4c You responded as having felt completely comfortable approaching Shawn Sederberg. Please explain your response.

#### Comments

Dr. Sederberg was very friendly and approachable whenever you had any guestions about the material.

He's always available to help his students and provides help in a judgement free and supportive way

He approachable and nice

He was very open to questions and made himself assessable for help with office hours, or even after lectures.

Nice professor and being patient to everyone

Dr. Sederberg is absolutely a good prof and willing to answer questions.

Was available and friendly

Professor Sederberg was very approachable during tutorials/after lecture.

very nice and approachable prof, very accomodating also

Shawn Sederberg was very approachable to students, particularly in issues I was facing in the course.

Throughout the semester, I went to Shawn's office hour once a week by averaging. He was available for my every visit and answered my questions with details

He is very kind/ patient when it comes to questions, and I felt like I could ask him anything.

Clear content

Nice professor

Hes a good and fair prof

Hes very friendly and helpful.

Great

He is nice and supportive

Shawn has to be one of the nicest professors in the engineering department.

He was easily available.

Shawn was always available after lectures, and during office hours.

I went to Shawn's office hours almost every week and approached him after class. He was always friendly.

Shawn has many office hours, he is kind and open to questions at all times.

Shawn takes his time to explain concepts to students and is very thorough with justifications. He understands the students concerns and is accommodating to students' needs.

Always available on his office hours, answers and explains clearly on the questions being asked

I had no issues when approaching him.

Sean is very kind and encouraging of questions. He always takes the time to understand and help you with your question.

respectful

Dr. Sederberg is very knowledgeable and open + keen to improve students' learning outcomes. As such, he is easy to approach with questions and concerns

I have went to his office hours when i needed to

Very approachable prof.

My response indicates that I feel at ease and confident when approaching Shawn Sederberg. This suggests that I find him approachable, supportive, and open to questions or discussions, which creates a positive and comfortable environment for communication.

Very open to questions and answered them well, with lots of availability

He has ample office hours, responds to emails quickly, and is open to providing guidance even after class.

Shawn was always available after class and also usually open for question whenever I dropped by his office.

When I needed help or just had a question about the course I asked Shawn

# 2.4d You responded that you didn't approach Shawn Sederberg, but the reason had nothing to do with their approachability. Please explain your response.

## Comments

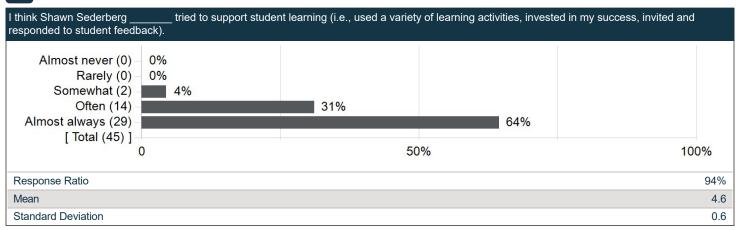
I didn't approach Shawn Sederberg, but this had nothing to do with their approachability. I simply didn't encounter any issues or questions that required their assistance during the course.

## Summer 2024

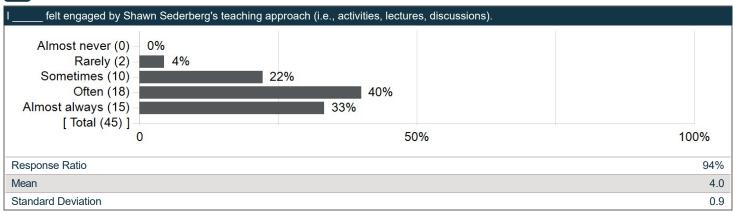
## 2.5 Instructor

For Q2.5a - 2.5c, the mean score can range from 1 to 5. It is scored as: Almost never = 1, Rarely = 2, Sometimes/Somewhat = 3, Often = 4, Almost always = 5.

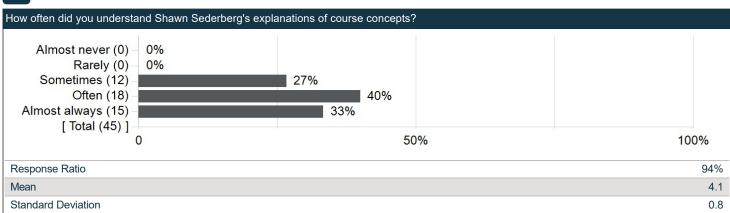
## 2.5a



## 2.5b



## 2.5c



## 2.6 Which aspects of ENSC 470/894 helped you learn and why?

#### Comments

The in–class tutorials definitely helped me understand a certain concept better, as everyone would be working on it and could ask for help from the prof or the TA easily. Easier for me to learn with others as we are all working on the same thing.

I enjoyed the weekly tutorials, and they were especially helpful in ensuring I kept up with the course content and didn't fall behind

The labs were helpful. Tutorials/IN class eamples

We had in-class tutorials which Dr. Sederberg or the TA would go over practice problems or concepts with the class, and this allowed us to work through problems with them there to help when needed.

The tutorials and assignments help

**Tutorial** 

The mandatory tutorials

the tutorials and the homework!

The extra practice questions were very helpful, and the lab documents were very concise

the weekly tutorial, and posted practice exams because having extra questions to reference and work on is really nice and supports learning

The delivery style and pace of the professor.

The tutorial and TA sections per week provide opportunities with me to practice what I learned and better prepare for assignments, lab, and exam

The tutorials on Wednesday where game changing!

Good amount of tutorials

I really enjoyed the interactive tutorials and working with the labs

none

The instructor was nice and engaging.

Labs

Ta tutorials, and worksheets were quite helpful to settle in the information that we learned.

The questions we worked through in class or in assignments helped me because I learn by doing

The massive amount of tutorial problems was the best way to learn. Seeing the types of problems and learning the problem solving method was very helpful.

I liked how Shawn explains how equations are derived as that really helped with concepts being put together. Assignments were very good practice.

The tutorials and example problems helped me the most because it gave a sense on what to expect for the exams

The entire structure of the class was excellent. Lectures were closely related to assignments and labs. Tutorial worksheets and tutorial presentations always helped me understand the course material better. The homework assignments complemented the lectures and the design questions were challenging but in a satisfying way. This class was easily the best structured class of my entire degree and every lab/assignment/exam was fair.

the worksheets

I think the fusion of in-class lecture content and interactive tutorials / worksheets helped me nail down the concepts better than in other courses

Lots of oppurtunity for practice with weekly worksheets and tutorials

Tutorials it helped me stay on top of the lectures

Several aspects of ENSC 470/894 helped me learn effectively:

- 1. Hands-on Lab Experiments: Reinforced theoretical concepts through practical application.
- 2. Instructor Support: Guidance and feedback from Shawn Sederberg clarified complex topics.
- 3. Collaborative Projects: Fostered teamwork and diverse idea exchange.
- 4. Course Materials: Clear and detailed instructions aided understanding.
- 5. Interactive Discussions: Encouraged active participation and deeper exploration.

The weekly tutorial questions helped me stay up to date with the material and the labs was good to have a practical aspect to the lectures

The aspects of ENSC 470/894 that helped me learn the most were the tutorials and the hands–on experiments. The tutorials were led by a well–known TA who was chosen for their expertise, which provided valuable insights and clarified complex topics.

The heavy emphasis of tutorials definitely helped me learned how to apply the concepts in problem solving. The design questions on assignments also helped for applying the concepts into real–world design.

The detailed explanations and hands—on laboratory experiments in ENSC 470/894 helped me learn because they provided a practical understanding of complex optics concepts and reinforced theoretical knowledge through real—world applications.

The in class worksheets that Shawn had us do really helped to show me where I was at in terms of knowing the material. Helped keep me up to date and not fall behind

## 2.7 How would you improve ENSC 470/894 for future students?

#### Comments

Faster assignment/lab marks back to the students. So far it's near the end of the semester and we've only gotten one assignment mark back and no lab report marks

Some of the design questions were a bit more difficult than I initially expected. All the content was covered, but some of the content required to do the assignment's design questions could have been stressed a bit more in particular

Lecture slides are pretty lengthy, shorten/make more concise if possible

The class was run fairly, and I have no complaints.

This is already a nice course provide by Shawn

Maybe change the schedule of project for graduate student?

Maybe more examples in lectures to explain concepts more

I think working through more problems, the level of question to which we'd see for an assignment/midterm, during the lecture would improve the class for future students.

make it intersession when offered in the summer, other than that nothing should be changed great prof, great ta and great course

N/A

The feedback regarding assignments and lab reports should be provided faster.

Instead of a TA tutorial on Friday I would do another tutorial like the ones we do on Wednesday where we get to solve problems instead of watching Sean the TA solve them. I think that would be more helpful.

Maybe better lecture structure, sometimes I lose track of things from the slides. Faster return times in homework and labs would be mine as well

I would prefer more labs over assignments

Need to catch up the material every week

No specific thoughts for this

Do more problems as a part of lecture rather than just the worksheets. Lectures were very theory heavy, and often hard to follow all the way through the slides during the 2 hours.

I believe Shawn can shorten some of the very conceptual and mathematical equation development and focus more on explaining connections between concepts and equations and how they can be applied

None. I think the course was very well done.

I would prefer if the derivations of formulas/equations are put separately from the lecture content itself. Derivations are quite long, I do appreciate them as it helps with understanding but sometimes its quite difficult to search for theories of certain topics in the lectures as I find that it gets intertwined with the derivations.

The one thing is that assignments and labs were not given back very quickly but I believe those were marked by the TA

I would make no changes to the class.

nothing to change:)

I have really liked this course but maybe I would include more connections to the real world (where lasers are used everyday for example) just to really make the concept more personal

Maybe more design problems

N/a

It was so impressive

more labs/in class demos

I would suggest integrating the lectures more closely with the lab sessions. For example, having Dr. Sederberg or the TA teach the lab materials while conducting the experiments would provide a more cohesive learning experience. This approach would help students connect theoretical concepts with practical applications more effectively.

Have a rubric of how the labs will be graded. Give us feedback on our labs and assignments sooner.

I would suggest offering additional study resources or workshops focused on challenging optics concepts.

# Section 3 - Discipline Questions

This section may be blank if your department/school has not added Discipline Questions yet.

