1: GEO-SD302 2023 STUDENT EVALUATION

DEPARTMENT:	System Dynamics Group, Department of Geography, UiB
COURSE TITLE:	GEO-SD302: Fundamentals of Dynamic Social Systems (Fall 2023)
COURSE INSTRUCTOR:	Ali Saysel
TEACHING ASSISTANT:	Furkan Onal
TOTAL NO. OF RESPONSES:	11

2: Statistics

Signed up for exam: 64

Absence: 13

Fail: 8

Grade distribution:

A: 10

B: 10

C: 9

D: 8

E: 6

3: Self-evaluation

Assessment of the teaching program in relation to the objectives and results

A. What did you focus on in the teaching plan? Give a short description of the teaching plan in the course, with emphasis on what was new this time.

This is a class on the FUNDAMENTALS OF SYSTEM DYNAMICS. This is a well-established approach, theory and methods for the analysis of dynamic complexity with an endogenous focus. So I'M NOT REINVENTING THE WEELS! So, I'm lucky! Of course, even when you teach PHYSICS 101, there is an issue of style, which differs with respect to "overall curricular purposes", "the context, ex. in-situ, or on-line", instructor priorities and past-experience, immediate student feedback wrt. comprehension, skills, motivation etc. EACH CLASS ROLLLS AS IT IS BEING DELIVERED.

GEO-SD 302 23H plan is to deliver:

- "problem orientation" of SD approach
- its principles to guide the analysts in white-box, causal modeling
- SD within wider context of "systems approaches"
- SD as a method of research and analysis
- tools and building blocks in SD (causal loop diagramming and stock-flow thinking)
- first order systems as the building blocks, their structure behavior analysis
- fundamentals of "analytics" versus "simulation"
- nonlinearity
- delays
- equation writing principles – and in overall, "quality building" in scientific modelling.
- towards future work with second and higher order systems – the "real life modelling in SD", "modeling as if life matters".

What is new this year? I reviewed my own teachings as well as what Prof. Moxnes has been teaching before. What is somewhat different is (a) less dependence on STELLA software in fundamentals (though it is one of essential software in modeling and analysis of higher order systems and for many other purposes), (b) stronger emphasis on structure-behavior distinction with structure-behavior analysis, (c) equation writing and model quality emphases… (So I'm subtracting Prof. Moxnes's invaluable contribution on misperceptions a little bit to be delivered in more depth in GEO-SD 306 reinstalled into the program).

B. What is your opinion of how well the teaching plan worked? Give a brief description of any evaluations that have been made and give an assessment of the experiences with this year's teaching plan.

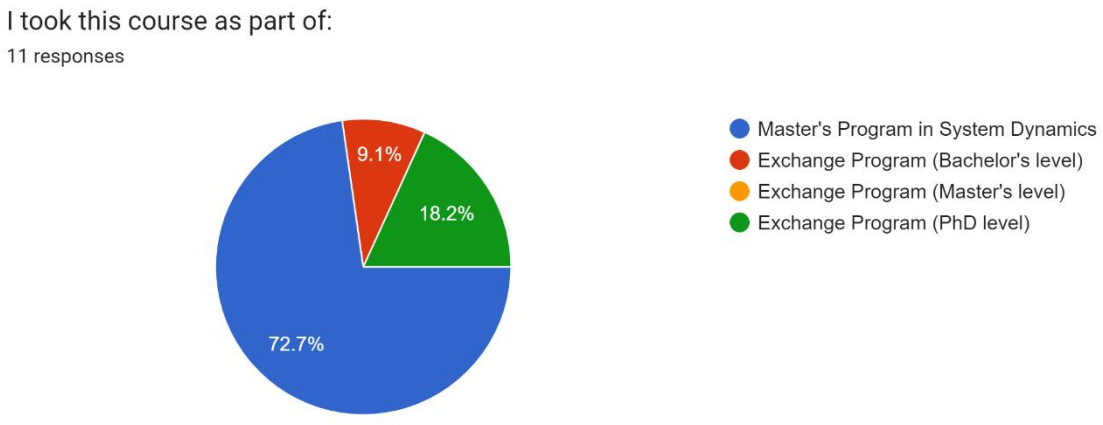
There are knowledge gaps and skill differentiation among the students. The class is large, the teachings are fast (six weeks with an intense schedule) and there are students in-situ and on-line. These are challenges which potentially can disrupt teaching plans. The teaching plan went well but I need precautions next time to mitigate these potential disruptions. Please see below:

C. What adjustments will you recommend for the next time the course is offered? Give a brief assessment of which parts of the teaching plan should be continued and what, if any, should be changed.

Teaching plan is ok. As said, I'm not reinventing the wheels, and in academia and in scholarly work, there are challenges that you cannot compromise but have to face and solve. My suggestions for SD-302 follows from above:

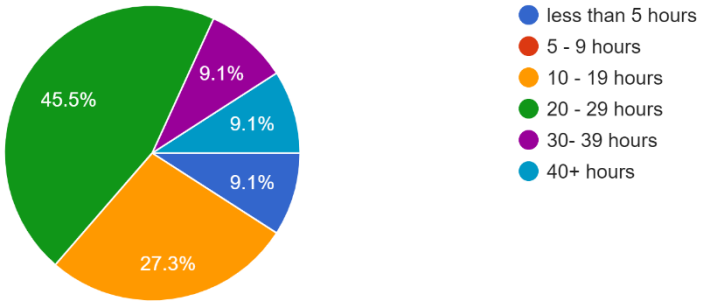
- Make the required analytical skills clearer in advance (which is linear algebra and analytic geometry with two independent variables). Suggest self-tutorial in advance.
- Incorporate some more but minimum material in qualitative systems thinking, mapping.
- Change the student evaluation scheme from the "final exam" to weekly /biweekly portfolio assessment.
- Based on this change, design short and practical weekly/biweekly tasks and rubrics for faster, immediate feedback.
- For this, involve the TAs more in evaluation
- Improve voice and video transmission on-line with replacement of basic technology.
- There wouldn't be much time for LABs – but create larger space for TA and student involvement and open Q&As.

4. results



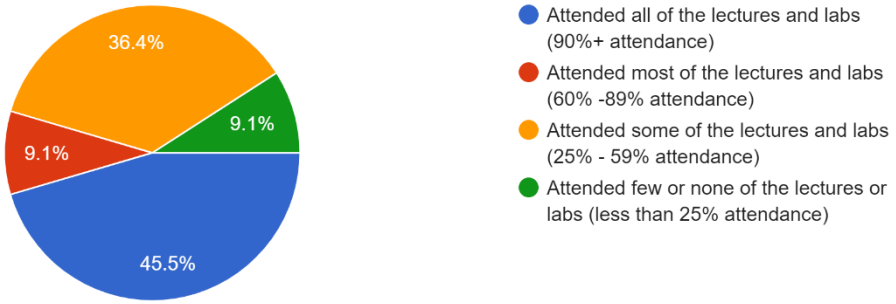
How many hours per week on average did you spend on this course? (include all time spent studying, doing homework, attending lectures and labs, etc.)

11 responses



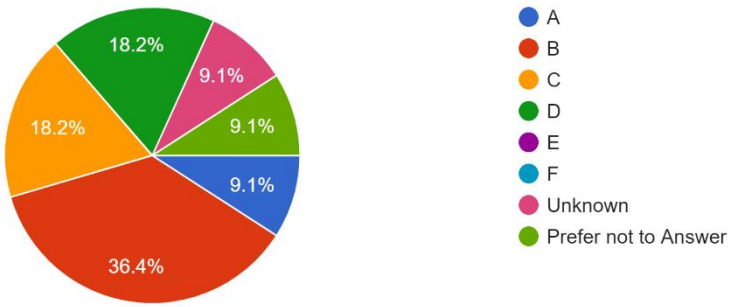
To what extent did you participate in the lectures/labs?

11 responses

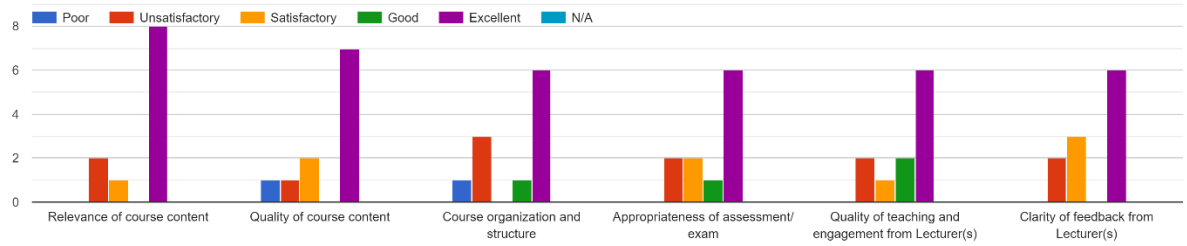


What grade do you expect to get in this course?

11 responses



How do you assess the course content and the lecturer(s)?



What did you like about the main lectures and overall course content?

11 responses

1. The content was great. I really enjoyed every single part.
2. I liked that Ali walked us through the math basics of SD. Clarified a lot in regard to understanding the underlying reasons of model behavior
3. Seemed appropriate for an introductory course. Good balance of reading material.
4. Clear structure and key take-aways from each lecture.
5. Help me understand in depth the basic foundations of system dynamics
6. Professor Ali is very patient.
7. Ok but poor
8. nothing - not relevant system dynamics knowledge - not the fundamentals of methodology
9. Ali seems like a great teacher and I appreciated the extra focus on math concepts because this is not my area of expertise at all
10. content
11. Understandable lectures + using of Stella software

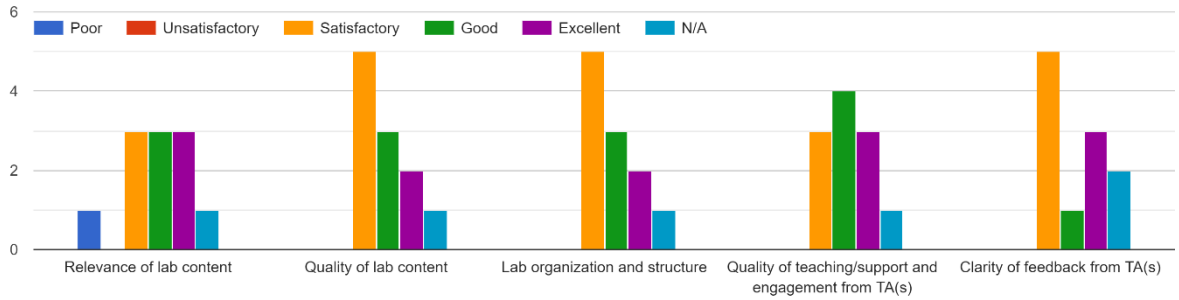
What improvements would you like to suggest to the Lecturer(s)?

11 responses

1. Recording was not appropriate, so it made the online course not easy to follow.
2. There is a chance to improve in technological tools to improve the experience for online students.
3. I think the course was way too slow and repetitive. We spent almost 3 weeks revising the same thing over and over again. This course could have been made shorter. Or perhaps more things should have been added. Such as basic archetypes, and more modelling exercises.
4. Also, I think the fact we did not have the typical SD 101 intro lecture explaining what SD is left some students lost about the theme. Some students mentioned that the course was being 'taught backwards" bc they could only see a real model in the last weeks of classes.
5. None really
6. additional slides with exercises.
7. More exercises to be practiced on our own, especially with the application of Stella
8. I hope the difficulty of the exam can be reduced a bit
9. Change structure of the course and teaching style
10. too many to answer here, at all levels. Lecturer needs to learn to design proper exercises and how to read causal loop diagrams! (not a teacher)

11. Audio issues are very difficult for online students, especially those in different time zones that cannot always attend lectures live. Another major challenge, speaking from the perspective of someone who is not comfortable with math, using a smart board would be much better. It was very difficult to see all the equations being worked out on the white board and this made following along challenging to the point that asking for clarification outside of class would require going over the entire lecture again.
12. More detailed and in depth explanation of the subject as many students are totally new to this field of system dynamics.
13. more real-life examples

How do you assess the labs and the Teaching Assistant(s)?



What did you like about the labs or other interactions with the TA(s)?

11 responses

1. They were practical
2. Furkan was very helpful anytime we needed him.
3. Good seeing models work and building them
4. Provide technical details.
5. Help us get used to Stella
6. very good
7. N/A
8. TA was interested, motivated
9. I did not attend all labs due to conflicts with other classes but from the recordings they seemed fine
10. no
11. everything

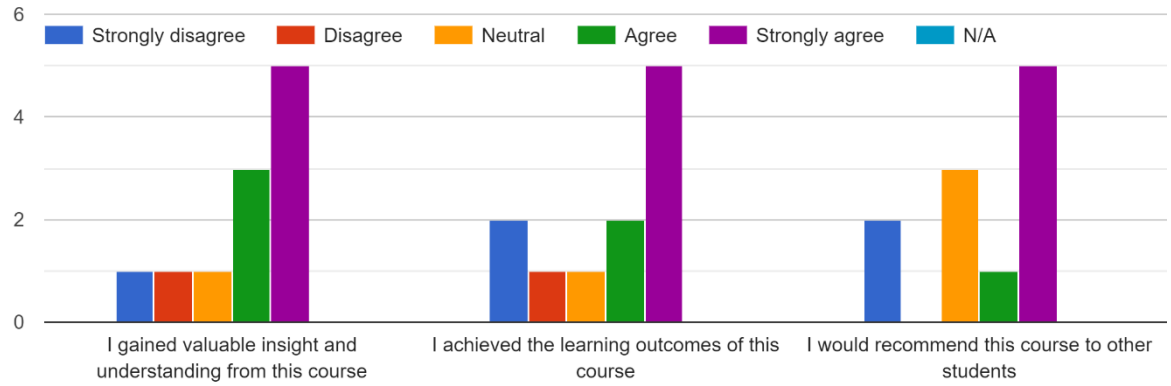
What improvements would you suggest to the TA(s)?

11 responses

1. Not much feedback to the TAs.
2. The labs did not add anything new on top of what i did at home. It was simply a reproduction of the model. I would like to have seen behavioral analysis from the models in higher details from the start. And the introduction of a few generic structures from the start.
3. It seemed like the TA and Lecturer weren't on board 100% of the time with what was going on. The TA was figuring out the assignments at the same time the students were, which seems wrong in practice.

4. Probably a slide deck with technical explanations on modeling.
5. Sometimes it's better for the labs can be delivered in a slower way
6. Hope to have more devices to charge laptops.
7. N/A
8. needs to know better/prepare the exercises in advance, and needs to take the course DIGI Kilde Kritik , to learn what kind of information sources are 'reliable' and should be suggested to students
9. I think providing individual feedback instead of answer keys because even after doing the readings and attending lectures, some concepts were unclear depending on how they were named in lectures versus how they were named in the readings and I think this could have been cleared up with direct feedback on assignments though I understand that time constraints prevent this.
10. no
11. less maths

What is your overall opinion of this course?



What do you feel you have learned by the end of this course?

11 responses

1. The core concepts and the philosophy of the discipline.
2. I learned the reason behind the basic behaviors that we encounter in SD. I think this is a very good take-away from the course
3. How to formulate CLDs and explain SD better to the people around me
4. Analyse SD models from a more technical and mathematical perspective.
5. The basic foundations of system dynamics
6. The Logic of System Dynamics
7. Nothing
8. nothing proper really, it was a waste of my time
9. after receiving the exam grades and revisiting the lectures I realized what exactly I misunderstood or never understood, especially regarding solving algebraic equations.
10. Basics of system dynamics.
11. general overview of System Dynamic

What do you wish you could have learned more about in this course?
11 responses

1. Mathematical process by which the computer solves many loops and stocks.
2. Archetypes, more modelling, deeper and faster into SD. I think we spent way too much time discussing basic things and that prevented us from exploring other important topics.
3. Specific topics that were quickly glossed over but appeared in the exam, such as co-flows
4. more details on the integration and derivatives. This part was slightly short.
5. More applications with Stella
6. More tips on Stella software
7. More valuable things
8. too many things, at all levels
9. N/A
10. I wish this course could have been for longer duration so basics could have been stronger
11. nothing

Do you have any additional comments? If so, please discuss here:

6 responses

1. My online experience was very bad. I have been an online student before in other two univesities, this was my worst experience. Very dissapointed.
2. i felt that many students lacked the basics to understand what was being asked from them. I dont think the issue was Ali bc he was very dedicated to making it understandable for everyone. instead, it was the case that the level of knowledge of students was way too apart. perhaps an introductory mooc before classes start (e.g., summer school, or 2 weeks before official start) could ensure that contact hours along this course were used in the best way possible.
3. Chatting with students from previous years, we received similar concerns from them.
4. no else
5. too poor
6. The issues with audio and material written on the white board not being shared online was very difficult and should be addressed if this class/program continues to accept online students.
7. no thanks. Above opinion is enough I guess.

5. How do plan to follow-up based on the course report

I'm happy with the course report except the turn-out rate is 11/51 – which is disappointing. The results are as I would expect. There were students who enjoyed the challenges and were few who were somewhat lost and somewhat complained. With what I said under 3/C we shall improve on. And what I suggest under 3/C is the plan.

BUT HERE IS MY PERSONAL COMPLAINT: It is very disappointing that I cannot know who succeeded and who couldn't in the exam among those students whom I know! This is poor feedback for an instructor that he cannot know ex. whether those who are silent or those who are more responsive

are learning, or a particular dialogue /explanation about a student's question is paying off or not. I can understand the "blind review" during evaluation, but blindness after evaluation is unfair for both the instructor and the student. How are we going to monitor their development in the overall SD MPhil program as they scroll through 9 classes towards the thesis! If the instructor is not trusted in simple privacy issues, then he should not be trusted in for a lecture delivery at all. In other words, if we are the employed, responsible people who run the teaching programs and deliver disciplines in which we are committed to, there is no reason for not to be trusted for privacy in student grades. After all, some administrators (so they are just employees as we are) have that information but we the instructors don't! I cannot understand. This I think should change.