1. GEO-SD308 2024 STUDENT EVALUATION

DEPARTMENT:	System Dynamics Group, Department of Geography, UiB
COURSE TITLE:	GEO-SD 308: Model-based Policy Design and Analysis (Spring 2024)
COURSE INSTRUCTOR:	Saeed Langarudi
TEACHING ASSISTANT:	Nada Oubrhou
TOTAL NO. OF RESPONSES:	17

2: Statistics

Signed up for exam: 21

Absence: 2

Grade distribution:

A: 9

B: 5

C: 4

D: 1

3: Self-evaluation

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

In my view, the course was successful in terms of achieving most of its learning objectives. In particular, we managed to make a strong connection between system dynamics modeling and what is taught in traditional public policy courses. Students have been able to understand the concepts of policy, policy design, and policy analysis in a broader context. They have gained a good understanding of typical methods policy analysts use outside the field of system dynamics. That includes, operations research (mathematical programming), econometrics, agent-based modeling, and optimization. The students have done extensive practice on quantitative policy analysis including policy sensitivity analysis. And, they completed group projects in which they practiced the concept of policy design and reporting their results. Overall, I am very much satisfied with the outcome especially because it was the first time the course was delivered in this new design and format.

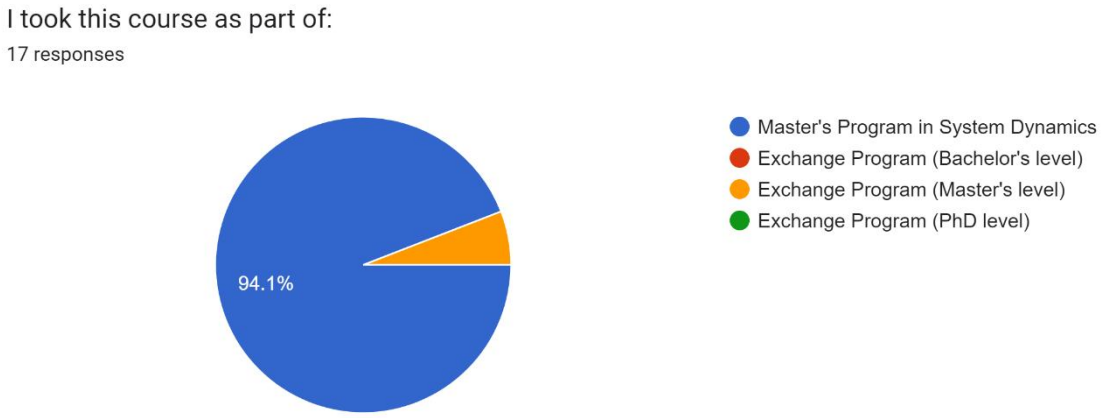
There have been, of course, limitations and weaknesses that will be addressed gradually in the next offerings of the course. Some of the materials included in the course were not a good fit or were not aligned well with the rest of the course. Lecture sessions were shorter than desired, which made some of the lectures appear to be hasty and unorganized. There were some confusion between me and the TA, which also confused the students. The course introduction was not as clear as desired. In particular, the students did not fully understand the expectations for the final project and the final exam. Some of these issues will be resolved by the ideas I have listed in Section 5 below.

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.

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.

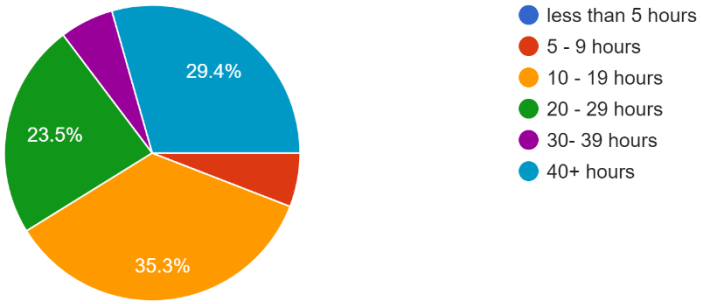
C. What adjustments will you recommend for the next time the course is offered? Give a brief assessment of which parts of the teaching plan should be continued and what, if any, should be changed.

4. Results



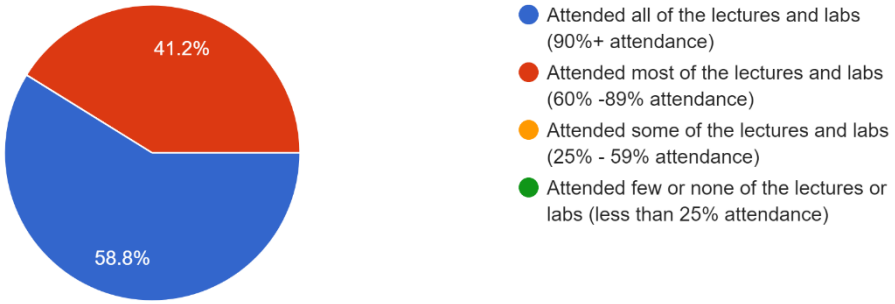
How many hours per week on average did you spend on this course? (include all time spent studying, doing homework, attending lectures and labs, etc.)

17 responses



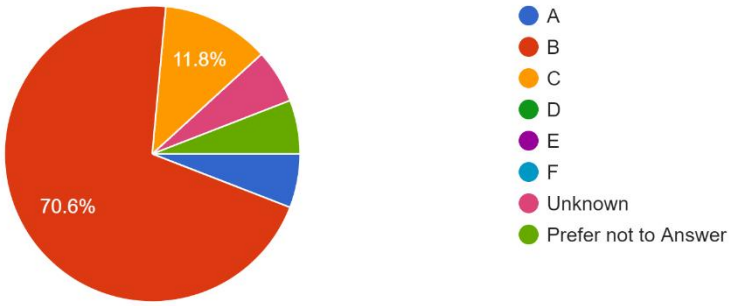
To what extent did you participate in the lectures/labs?

17 responses

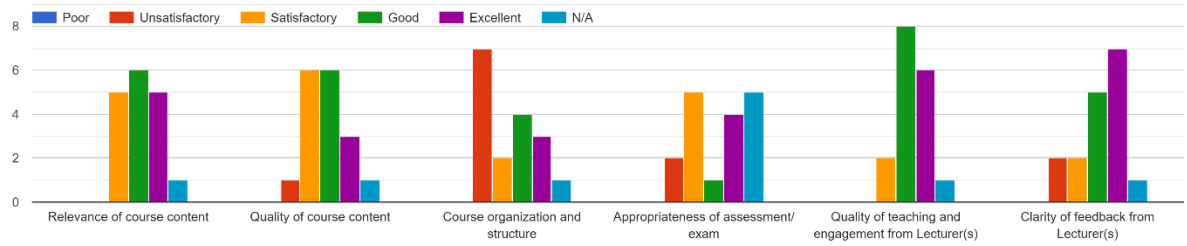


What grade do you expect to get in this course?

17 responses



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



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

17 responses

1. I appreciate learning the perspective actual modelers on how they use SD models in certain policy implementation scenarios. I liked it most when we actually went through modeling examples and did step by step processes to do things like policy outcome sensitivity analysis.
2. The lectures were thorough and I was able to understand the topics. If I was ever unsure about something, then Saeed was able to make it clearer for me. He made sure that students who weren't sure AND told him that they didn't understand would understand by the end of the class.
3. I like the topic of policy analysis, we really looked at different models and went throught the equations which helped
4. I like both teachers (Professor and TA). They are very dedicated and attemptive for feedback. I also liked that this course touched upon slightly more technicl aspects of SD
5. The lecture content is well structured.
6. This is very important course for real life problems.
7. Every lecture was crystal clear. Saeed was always available.
8. I like that Nada and Saeed are always on call and they always helpfully.
9. I liked that it looked at different policy issues, and that we learnt the difficulty of policy recommendation, it gave a realistic perspective on how hard it is to reach consensus on policy
10. Very engaging and interactive
11. The subject is a logical continuation of the 304, focusing on the policies, which we were lacking before. Professor and TA provided enough feedback and support if needed

12. The were self-enriching and have improved my understanding of policy negotiations and policy sensitivity. I have particularly learnt how policies may be good for one group of individuals while at the same time being detrimental to the other group.
13. The tools, like optimization and sensitivity were interesting to learn and experiment with. I liked that we jumped from model to model across the weeks using these different tools across different scenarios. If we would have stuck to just strictly 1 model per week it would not have been as fun.
14. I liked that we explored many different topics related to policy analysis. Also, that we learned how to use SD to evaluate policies and get a basic idea of how to build a policy recommendation report.
15. We had more exercises to work and the content provided sufficient knowledge regarding policy analysis. The in class exercises were very useful for the learning process. The best part of this course was having guest lectures every week. They contributed in giving students the opportunity to look beyond the classroom and relate what they study in the class to the real world problems.
16. Saeed is so far my best teacher in the program. I think he is doing a great job with this course, too. I like the most how Saeed carefully and patiently guided us on how to work with the software and repeatedly repeated some main points that often confuse us (eg, policy sensitivity vs. policy outcome sensitivity), and he did introduce some useful sources that did help me to solidify my understanding.

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

17 responses

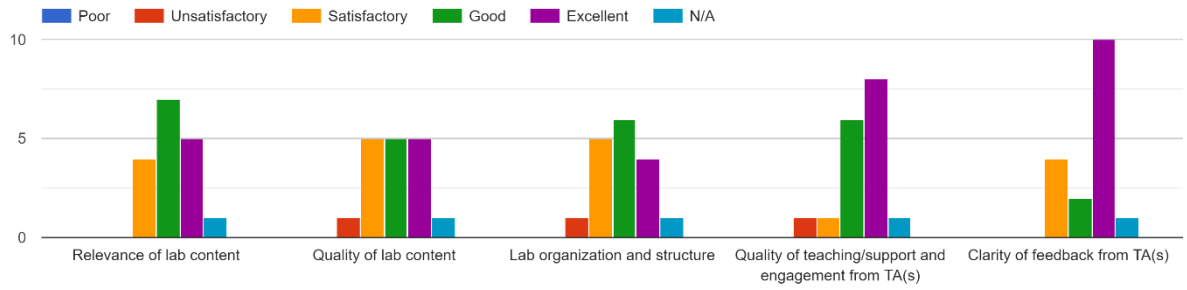
1. I definitely felt like this class was being built as we were taking the class. It felt like the TA and the Professor were not always on the same page. It was especially challenging for me when were given certain expectations to complete for the assignments but then we would consistently run out of time in lecture to learn what we need. We also often did not learn what we needed to do until the day the assignment was expected to be submitted. This creates unnecessary stress and confusion. I did my best to learn outside of class time and ask questions, but it would be much more helpful to have the information we need need. I think assignments should be based on the previous weeks knowledge as a result.
    - In relation to that, the assessment criteria for the final report has been outlined, but no "good" example of what it looks like has been provided in the lead up to the submission. This would be helpful to have at the beginning of the course as we are preparing material starting in week one for the final report.
2. The content that we were learning over the week was also the content for the assignment that we were handing in at the end of the week. Some of the tasks in the assignment were about topics that we were going over on Friday at the end of the week. This gave us very little time to do those tasks when we had potential time to do it earlier in the week.
    - If the assignments were about the things that we learned in the week before, then we would be able to do the assignment at our own pace and not have to stay late on a Friday to make sure that the assignments were properly done.
    - Usually we weren't able to go over the content for the lectures because we ran out of time, so some better time management would be ideal. We were often staying

extra minutes at the end of the lecture to go over some of the remaining slides, not all students are able to stay later than exactly when class ends.

3. Give more clearity on what the final exam is going to be like (not surprise us with the fact that it is two parts near the end of the course)
    - It was often unclear how the topics discussed in class were related to our assignments or how we could come up with those things ourselves (for example, the theory was discussed well during class and made sense, but there was no direct link to how we should use it or how we could come up with it because it was often already provided in the example; how to come up with the constraints or decision variables etc).
    - I would really like to emphasize that people need an actual break during lectures
    - We often rushed through powerpoints and exercises, because of lack of time, which meant if you blinked for one second you would miss information and not be able to continue with the exercises, which is a shame
    - It seemed like we sometimes spend a lot of time on things that either were not as important or would be better discussed during office hours, and then have to skip or rush through actual important topics
    - While I could understand what the first week of policy negotiations could add to the course, I felt that four days was way too long and we also never really looked back at it or used it as an example in the following weeks. As we already had limited time, it feels like we could have had less days of the negotiation days and more actual lectures/labs
4. I believe the course was too slow. First week of class had no clear relevance to the theme, despite being fun. 2nd week of the course could have been taught in less classes. overall I felt this course moved really slow.
5. The course is good but time schedule is very tough to understand the whole content also less time to practice.
6. I am doing another entry in the form bc I want to be more specific about some of the feedback I have to the professor. So please feel free to disconsider the likert answers above. My main points of feedback are the following:
    - Transparency/Organisation: We should have a syllabus setting clear expectations about what to expect in the course. I like challenging courses that pushes me to be better. But disclosing that we need to write a 10k words paper 1 week before the end of the course is not transperent. Nor avoiding to disclose how much it will count for the final grade. I dont see any purpose in this except than playing against our mutual organisation. The syllabus should contain the topics dealt on each lecture, the required reading for the lecture, due date of assignments, and how much these assignments will count for final grades.
    - Organisation and time management: despite being paradoxical, the lectures could be denser if there was better time management discussing relevant topics for the course.
7. Be more quantitative, get rid of the negotiation part.
8. You cannot improve what's already perfect :)
9. Do not overthinking, if we doing projects why we need to take home exam?
10. Clearer structure and communication from the lecturer, transparency in assessment expectations
11. Clarity on course assessment

12. Better organising of the lectures, upload slides before the lecture, and put deadline few days after the last lecture regarding the topic of the assignment, so there will be time to complete the assignment in time. It also would be better to look at more policies during the subject, to extend knowledge in this area.
13. Nothing much
14. I didn't like that all of the slides couldnt be adressed in the lectures, but they contained needed information. Perhaps set up a reading list with the slides formated like a paper or something, to make it more concise.
15. I think it would be important to use less lecture time on "math-y" things, and more time on the core of system dynamics, which is the analysis of "why" and "how". Learning how to manage stakeholder expectations would also be a very valuable thing to touch on. The weekly assignments, in my opinion, should also be clearly made so that in the end they can be "merged" together in a report. That way, like in 304, the report is being slowly built over the course, and can be refined in the end.
16. Organizing the course material and the slides in a way that can be actually covered during the session. Some terms and methods are skipped during the lecture due to time limitation.
17. I guess I would like to see better arrangement of the lecture schedule. As sometimes I felt being disconnected with the lecturer, we started the week with Lab (Mon), and then interrupted with Guest Lecture (Thu) and then weekend.

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)? 17 responses

1. I liked how each lab was systematically broken down so we knew what the expectations were for each lab. I liked that we were given breaks. I also like how responsive Nada was. When we asked a question or needed to meet outside of the class period, she would make time to meet with us and discuss our questions.
2. Nada was always ready to help us with our assignment or model, even outside of the labs. She gave us good feedback from our questions. She was also ready for every lab and was able to go over the content for the lab at a good pace.
3. The TA really seemed to want to help you and clearify things for you. The TA was present during most to all classes so new what was being discussed and where more attention should be given or what needed to be clarified
4. Nada was always available and willing to provide helpful and informative feedback. I really enjoy working with her in general
5. The group discussion .

6. I would like to reiterate that Nada provided amazing guidance during the assignment and clarification during the lectures.
7. She was very clear and understood what she was doing.
8. Nada has always been very helpful to our group project.
9. That Nada really helpful
10. It was interactive and gave constructive feedback, TA was engaging and encouraging, good at motivating to do well
11. They took their time to address problems faced by students to the best of their abilities.
12. Nada is really supportive and helped a lot during study processes, feedback was clear and in time
13. The hands-on experience that comes with it was truly remarkable. The TA knows her job and the course content really well.
14. The chosen models were simple enough to play around with and understand.
15. I liked how the TA helped us understand some practical parts of the content and how engaging she was :) Explaining things in a clear manner.
16. The feedbacks I got from TA were extremely effective in the learning process. TA patiently guided us through project which we could relate our work to the topics we studied in the class.
17. I like that Nada was very active in helping us clarify things, or rephrase Saeed's words, I like her good intentions.

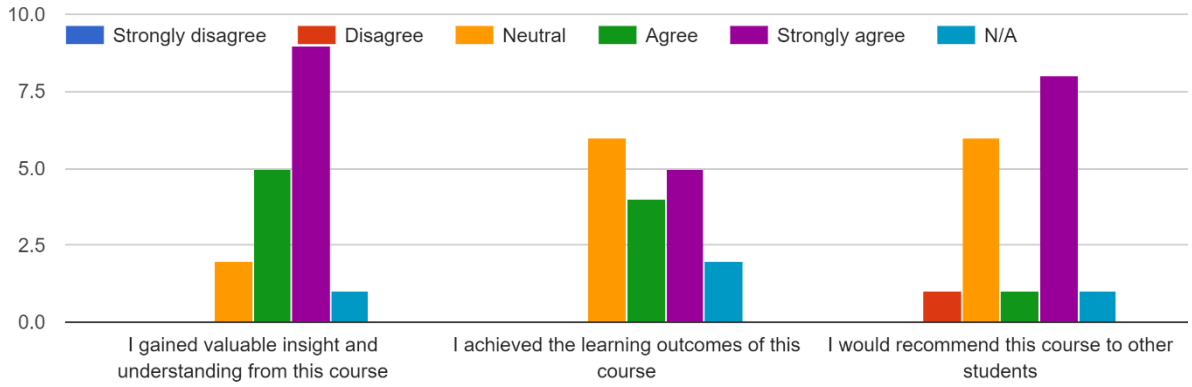
What improvements would you suggest to the TA(s)?

17 responses

1. The main issue I had was that there seemed to be a disconnect between the professor and the TA at times. We would ask Nada how to complete a certain question and there were moments that she was also unclear about what was being asked.
2. When we were deciding what model to use for the whole course, we didn't really know what we were going to be doing with it. After doing the assignments I feel like we didn't pick a model that shows how the policies can change the outcome of a system with the model that we used. I feel like we should maybe have been pushed to use/do a simpler model.
3. While I understand that many of the question you asked during class were for our sake to help clarify information, but it was sometimes a bit distracting and felt like we sometimes got stuck on a discussion of differences of opinion.
4. Make sure to align the content of the lab with the professor. Sometimes Saeed seemed like he did not know if something was covered or not, or whether something was acceptable on the assignment or not
5. More time and detailed practice of the model.
6. keep up the good work!
7. I have no further suggestions for Nada.
8. Clearer communication between lecture and TA
9. Nothing much. She should keep it up.
10. The TA's teaching style needs improvement, sometimes the advice was unclear and was often delivered in a way like "You need to do this" instead of "Have you tried doing this?". Also the group work in the labs was often unclear and seemingly pointless in cases. Also, differing model versions in the files section on mitt was often confusing, since some were not even needed.

11. I think it's something that is not entirely the TA's fault, but sometimes there was a bit of miscoordination with the lecturer, and that could be improved. Again, I don't think it's anyone's fault, necessarily!
12. I guess maybe she could be more relaxing at the beginning of the assignment :D

What is your overall opinion of this course?



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

17 responses

1. I feel that I learned how to use new features on Stella which I found to be very important. I also believe that I learned the realistic implementation landscape, or lack of it, in this course. My takeaway is that SD models are very helpful descriptors of a system, but they are not often used for actual policy implementation.
2. I learned a lot about policy space and where I should find leverage points and find policies that could fit there. I learned about different ways that policies could be implemented and how realistic they would be.
3. How to use Stella to run optimization and policy sensitivity analysis, the various criteria policies need to adhere to in a model. The different types of policies, the different evaluation criteria
4. Optimization, Policy Analysis Sensitivity
5. I have improved the skill of analysing policies.
6. How to design policies in comolex systems with uncertainty.
7. I've learned how to incorporate policies into a model and present them.
8. How to make policy in models
9. I feel like I learned what the course is set out to address, policy analysis and implementation
10. Model analysis
11. Policy analysis
12. I have particularly learnt about policy analysis tools and methods and policy negotiations.
13. That policy sensitivity and optimization are valuable tools. Policy analysis is an important part of any SD review.
14. I feel I learned the basics of policy analysis and evaluation, using SD. I feel I also learned about different methods that could be combined with SD in future work.

15. I mainly leaned policy analysis from the system dynamics perspective, optimizing different policy alternatives and the ways to interpret the analysis. This course also allowed me to research and learn more about other methods as well.
16. I learned not only about general knowledge of policy analysis but also deep into how the process is implemented within our field, how to work with a specific software. Also some main points about good practices for reporting.

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

17 responses

1. I wish we had more real-life examples of SD being used for policy creation. The guest lecturers were mostly researchers providing insight on the problem.
2. I feel like a lot of lectures that I've gotten from system dynamicists outside of UiB have all been about putting their results in academia papers rather than actually working with clients and help them solve their problems. I'm really unsure how I would use system dynamics after I graduate if I don't want to be doing academia. But that's maybe the content for another class.
3. How to use System Dynamics more for policies, more also on the way of thinking and not only how to use Stella. What would the various policy outcomes mean for policy makers, what should you look for and what should you avoid when coming up with policies
4. I wish this course was more robust in terms of policy overall - we did not get much knowledge about the process in general, except for the simulation on the first week.
5. I wish i could have learned and practiced more on making policies and applying them in models. But there was more focused on assignments and passing them rather having a time to revise and internalise lectures.
6. More indepth knowledge of quantitative topucs regarding optimization and sensibility.
7. Perhaps, I would appreciate seeing some real-life instances where these teachings were applied. Perhaps, a consultancy report, or government documents, etc.
8. More concrete and contemporary case studies
9. Learnt as to my expectations
10. More policy expamples
11. I am fine with what I have learnt in this course

12. How to confidently distinguish poly optimization and policy result optimization/sensitivity. Perhaps a slide that groups the meanings of those terms a bit more concisely.
13. I wish we could have gone deeper into the more practical aspects of policy analysing. I wish we could have gotten all the same model, from a real-life example, like public policy, for example. This way the material would be easier to follow, because everyone would have the same base model, easier to conceptualise, but then different policy ideas could come up, maybe different forms of analysing the policies, etc. And we could go deeper into how to use those analyses in real life, to propose change, which is, after all, why all of us are in SD :)
14. I wish I could learn more about optimization and policy outcome sensitivity.
15. Maybe some reevaluation of policy, after analysis and implementation.

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

12 responses

1. I guess I want to emphasize I could tell this course was a work in progress. I appreciate the effort that was put in to make this course as effective as possible, but I found myself often frustrated by the regular confusion that was caused by poor time management and structure of assignments so that we did not have the complete necessary information until the day of the submission. As a student, I require time to actually interact with the material. I do not learn as well when I am feeling rushed.
2. I feel very uneasy about the final exam. I am unsure what will actually be the topic of the exam and what to actually go over to make sure I am appropriately preparing for it.
3. For the assignments, there were often tasks where we had to wait until the end of the week for the lecture explanation before we would be able to do them. It would be more helpful if we already had had all the lectures and all the information we needed to be able to write the assignments.
4. I think this course has a lot of potential, but there need to be a clearer overall structure, on how the lectures will lead to the assignments and the final exam, and also just on the final exam itself, what is to be expected of us.
5. We learned how to optimize models, do policy outcome sensitivity etc. However, as i said, I feel this could have been taught way faster. Also, I wish I had more insight on policy literature or more advanced methods.
6. However, I would like to highlight that this does not make me dissatisfied with the course itself - see evaluation above.

7. My answers are not a personal attack to anyone or whatsoever. I do appreciate the dedication put in the course by the professor, however I believe these points should be visited.
8. Focus more on the quantitative part.
9. The only reason I will get a lower grade in this class is myself. If I was not working part-time, I would strive for A or B.
10. The microphone worked once over the entire course :D
11. All the less-good feedback and ratings in this form are not meant as an attack on any member of the faculty or the team. It is only meant as my honest opinion. I believe the topic of this course is a very important one, and I hope it can be improved in the future, so that future student could learn more and get more passionate about policy-making using SD!

5: Follow-up

Comments on previous evaluations (if any)

NA.

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

As I mentioned in Section 3, the course has been successful overall. Therefore, I will keep the majority of the content and design. However, there have been some shortcomings (also mentioned in Section 3) that can be resolved by taking the following measures:

1. Some of the materials included in the course were not a good fit or were not aligned well with the rest of the course. To address this issue, I am planning to replace the content of the first week (the policy negotiation exercise and some other guest lectures) with the policy modeling content that Matteo Pedercini teaches in GEO-SD321. For that, I will contact him to detail the plan. This changes have been discussed with the rest of the SD faculty and everybody is onboard with it.

2. Lecture sessions were shorter than desired, which made some of the lectures appear to be hasty and unorganized. I will ask Hilde to increase our lecture session time from 2 hours to 3 hours per day.

3. There were some confusion between me and the TA, which also confused the students. I will hold regular meetings before and during the course to ensure a perfect coordination.

4. The course introduction was not as clear as desired. In particular, the students did not fully understand the expectations for the final project and the final exam. I will create expressive slides that list all the expectations as clearly as possible. I will present the slides at the first lecture of the course. I will also share the same content on Mitt so that everyone is aware of the expectations.

1:325 Client-based modeling project Student Evaluation

DEPARTMENT:	System Dynamics Group, Department of Geography, UiB
COURSE TITLE:	GEO-SD325 Cliend-based modelling project (Spring 2024)
COURSE INSTRUCTOR:	Birgit Kopainsky & Claudiu Eduard Nedelciu
	Nada Oubrhou
TEACHING ASSISTANT:	
TOTAL NO. OF RESPONSES:	6

2: Statistics

Signed up for exam: 30

Absence: 2

Grade distribution:

A: 7

B: 9

C: 9

D: 3

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.

As every year, focus was on revisiting the SD modeling process discussing how to adjust the activities in each step to a context where we model with and for clients. We had two clients with projects that addressed issues related to sustainable mobility.

Elements that I emphasized more this year were:

- increased involvement of the client in the entire modeling process, not just the beginning and the end. This was based on feedback on previous versions of the course.
- increased focus on uncertainty and the importance of scenarios (Foresight workshop).

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.

Telling from the submitted modeling projects, teams did a better job this year at addressing the clients' problems and carving out a feasible chunk that was suitable for system dynamics modeling. Overall, this year's projects incorporated the interests and priorities of more stakeholders than in previous years and thus better allowed studying the synergies and trade-offs created by policy interventions.

Many teams also incorporated the Foresight exercise into their projects and formulated interesting scenarios and scenario narratives.

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.

I will mainly try to replicate this year's level of client involvement and the Foresight workshop.

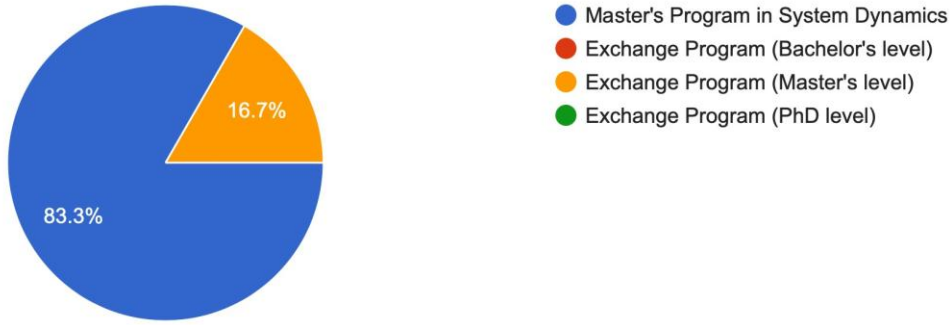
Based on the results of this course evaluation, I will also reconsider how to form teams across the three student groups that we have in the course (SD master students, students from Sorbonne, sustainability students) and work towards more homogenous groups.

Also regarding team work, we will discuss and practice more how to deal with conflict or challenging situations that will arise in a team.

4. Results

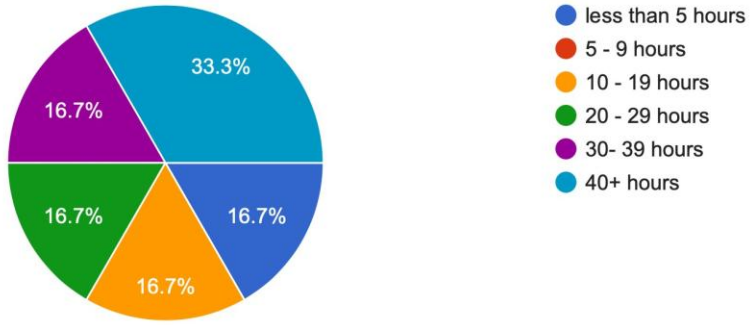
I took this course as part of:

6 responses



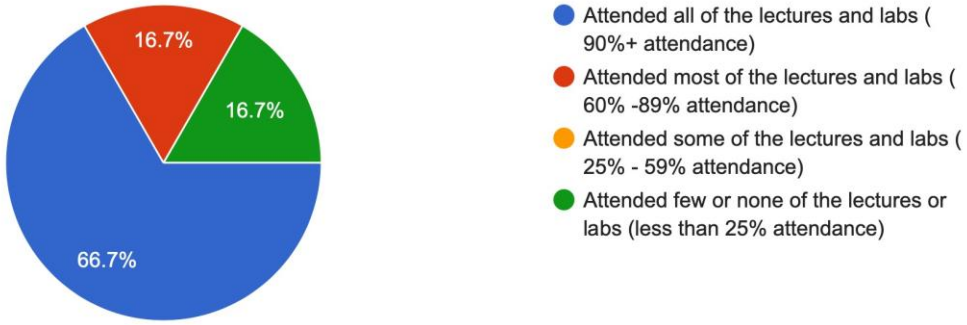
How many hours per week on average did you spend on this course? (include all time spent studying, doing homework, attending lectures and labs, etc.)

6 responses



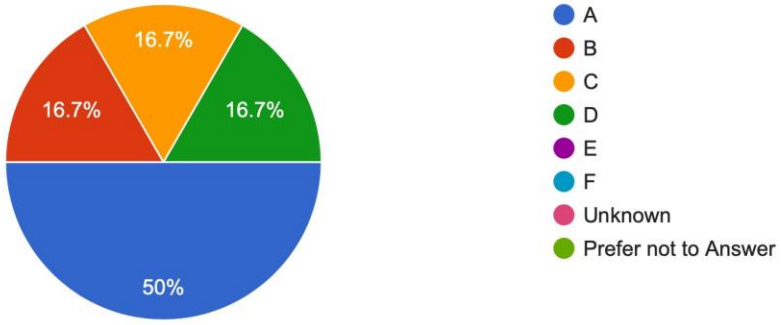
To what extent did you participate in the lectures/labs?

6 responses

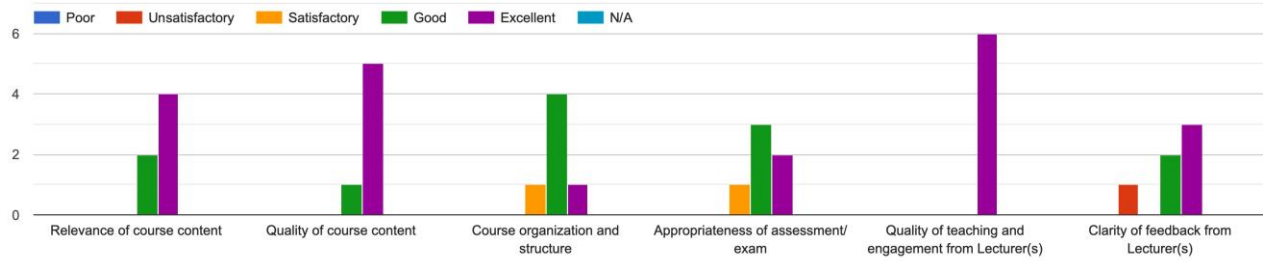


What grade do you expect to get in this course?

6 responses



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



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

6 responses

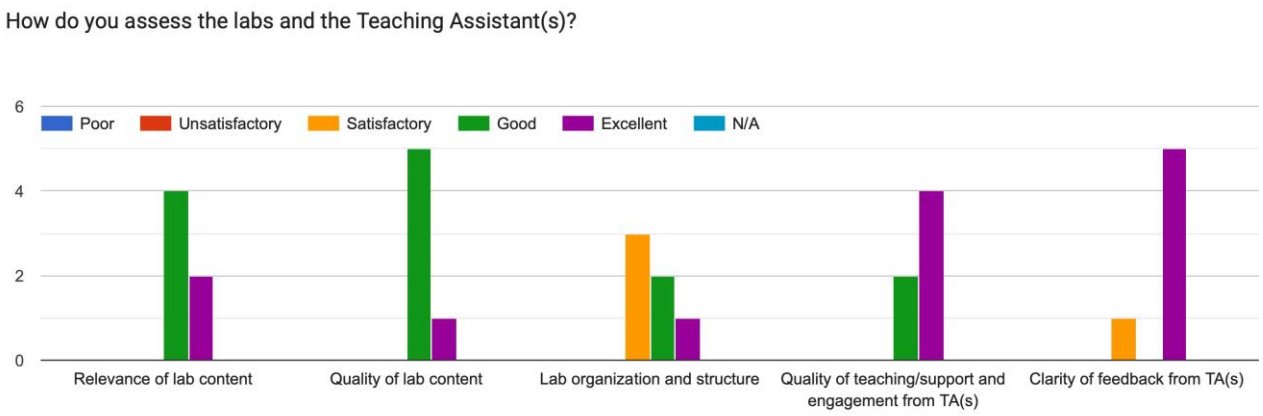
1. The breadth of topics covered and skills taught.
2. I experienced rich lectures in the class both in terms of content relevance and clarity, even though we had fewer lectures but more interactive study.
3. Variety of contents

4. I generally liked it. I would have loved to see just a bit of soft skill training, like how to meet with the client, how to adjust expectations, how to guide the project to a sensible path for both us and them, how to budget a project, etc. Practical things that might come in handy when talking to a real client, especially when things don't go perfectly.
5. It was nice to get to work with an actual client and experience how that is
6. Everything made sense as we built upon the projects

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

6 responses

1. None.
2. Since the projects we deliver count as our course exams and evaluations, there must be more work done to supervise the teams. We usually start working on a project in teams of four or five but sometimes only one or two people carry out the work. The poor quality of the delivered project because of other team members' lack of attention and interest, affects the grade of other people in the group.
3. N/A
4. I liked the interviews part, the foresight and the real life examples of SD applied, because all were very practical information on how to apply SD to real client projects. Focusing more on that than on the modelling itself I think would be beneficial. But I am not sure, it's just a feeling!
5. Developing skills which are useful when talking to clients: more in depth interview skills, how to have "bad news" conversations, what to do when disagreeing with the client/ group
6. none



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

6 responses

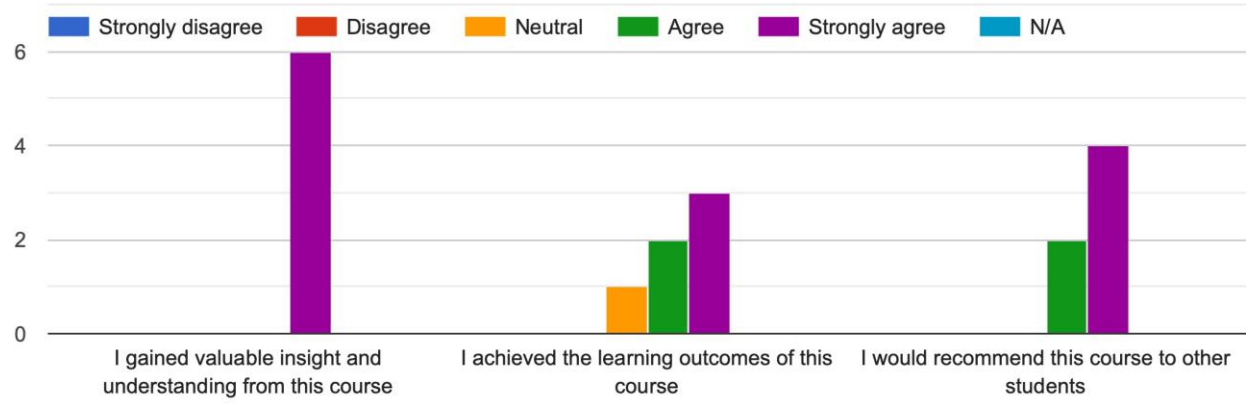
1. The TAs were approachable.
2. Feedbacks by TA were clear, friendly, and productive in the entire course duration. I like the way our TA wants us to explain the logic behind our stupid assumptions :).
3. The TA is very proactif
4. The TA was always super nice and helpful. Ready to improve the model with us and give honest suggestions. At times she even helped us with things not related to SD, that showed she really cares.
5. The TA is helpful and gives good and clear feedback
6. Making the group contract!

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

6 responses

1. More to the point comments.
2. N/A
3. Understand student's struggle with patience
4. None at all.
5. -
6. Present differently the exercise regarding successful SD cases - it was just us discussing in groups and sharing findings which was boring.

What is your overall opinion of this course?



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

6 responses

1. To capture qualitative effects in the model.

2. This was my first time experiencing direct interaction with a client to work on a study project. How to communicate with the client, conduct interviews, and how to collect data were the most important things I learned in this course.
3. Satisfaction, will be useful later on
4. Mainly what to expect from a client project. How better to deal with disagreement and how to manage expectations. Modelling something that is not coming from my mind is considerably harder.
5. working in a group, and working for a client. To delivere when there are a lot of deadlines and not enough time
6. How to form good groups that work together. How to handle work with clients.

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

6 responses

1. Conducting more structured interviews.
2. N/A
3. Policy Modeling
4. How to communicate better with the client, so that we can align on the specifics. In this case it was hard because our client was dedicated to various other projects.
5. Not just modelling skills, but also conversation and interview skills you'll need as a consultant
6. Not sure, I learned a lot!

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

4 response

1. None
2. N/A
3. No
4. I do have some doubts whether combining SD students with none SD students with minimum modeling skills works well. It can easily shift towards the SD students having to carry the project and also having to teach the non SD students how to model, which there is just not enough time for

5: Follow-up

Comments on previous evaluations (if any)

See point 3

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

See point 3