



ROYAL INSTITUTE
OF TECHNOLOGY

Evaluation of Climate Change Mitigation Tools (MJ2470, 6 hp) Autumn 2010

Evaluation of Climate Change mitigation tools 2010

The course Climate Change mitigation tools was given by Energy and Climate Studies, KTH, for the second time during the autumn semester 2010. The overall impression from the students was very good and the work with developing and improving the course for the autumn semester 2011 is based in these results.

The objective of the course is to provide a full understanding of the climate change agenda from what motivates it to the processes that have defined it and are evolving. In addition, the students should obtain hands-on exercises to analyze and evaluate the effects of mitigation options. At the end of the course, the students should have a clear understanding of the complexity of the climate problem and of how different mitigation options may contribute to resolve it. This understanding should be demonstrated through the dynamics of lab exercises and use of diverse tools to help address the problem. The learning outcome, measured in the survey, should be compared to these course objectives.

The course was highly rated by the students. 75% of the students would strongly recommend the course to another student and 25% would recommend it (Q12).

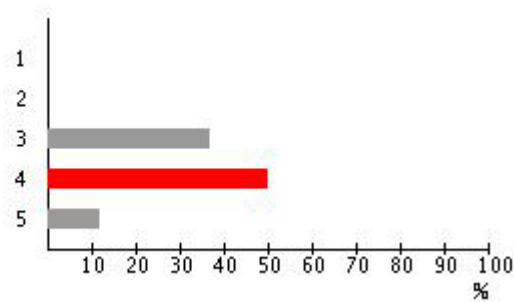
The most appreciated components of the course appear to be the practical exercises (Q4).

62,5% of the students rated the exercise LEAP, which includes software modelling of energy systems, as very good and the remain 37,5% of the students rated it as excellent (Q4). The exercise Climate Change interactive, which incorporates role play of the Climate Change negotiations and simple modelling of the results was also highly appreciated. 50% of the students classidied it as excellent in the survey (Q4). The practical exercise of CDM was also appreciated (Q4) together with the lectures that prepared the students for the exercises (Q3). The lectures were given both by the course examiner Prof Semida Silveira and invited guest lecturers.

Survey results

Survey:	Evaluation
Date:	2010-12-13
Group:	Activated participants (MJ2470 (2010) Climate Change Mitigation Tools)
Answered by:	8(14) (57%)

1) What is your overall impression of the course?



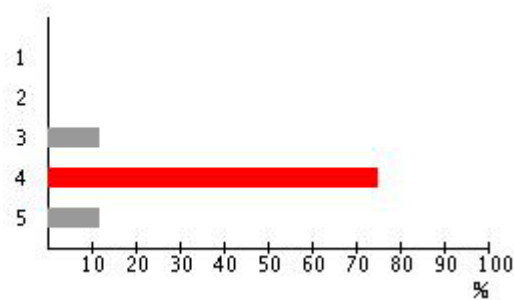
answer choice	1	2	3	4	5
distribution	0%	0%	37,5%	50%	12,5%

Average (for numeric-answers): 3,75

Comment:

- Good course with a very good approach.

2) What do you think about the course content in general?



answer choice	1	2	3	4	5
distribution	0%	0%	12,5%	75%	12,5%

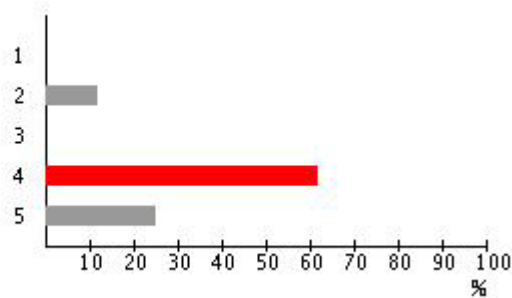
Average (for numeric-answers): 4

Comment:

- Sometimes repetitive
- I think a broad range of topics was covered which was good, however I would have wished that some topics would have been addressed a bit more, for example financial aspects

3) What do you think about the course lectures in general?

You can also write specific comments for single lecturers in the comment box. (Prof. Semida Silveria; Prof. Sribas Chandra Bhattacharya; Prof. Staffen Laestadius; Richard Klein; Prof, Staffen Algers)



answer choice	1	2	3	4	5
distribution	0%	12,5%	0%	62,5%	25%

Average (for numeric-answers): 4

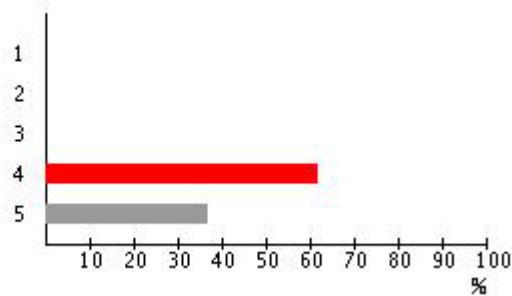
Comment:

- The content is interesting, but we have seen many times the same topics (global overview of the energy production, GHG emissions per sectors, Kyoto Protocol and its mechanisms...). It would have been better to treat each of these topics separately (and not in every introduction) to go deeper in these topics. A great lecture was given for the science of climate change!
- Some lectures were really good (for example: Richard Klein, Carl Hamilton), others not as much, such as the one about the science of climate change, perhaps it would be better to get a natural scientist there next time, not an economist

4) How did you experience the practical exercises in terms of content?

(1= poor/not interesting ----- 5= rich, very interesting)

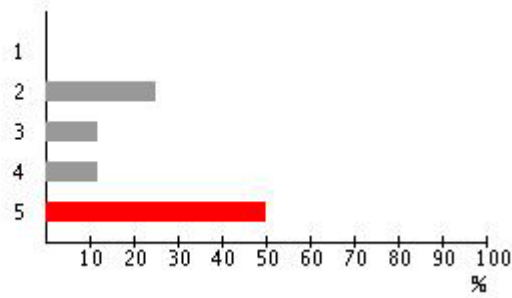
LEAP



answer choice	1	2	3	4	5
distribution	0%	0%	0%	62,5%	37,5%

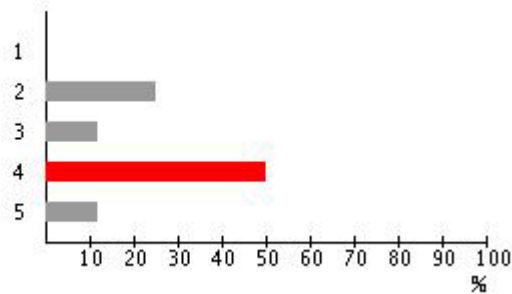
Average (for numeric-answers): 4,38

Climate Interactive Exercise



answer choice **1** **2** **3** **4** **5**
 distribution 0% 25% 12,5% 12,5% 50%
 Average (for numeric-answers): 3,88

CDM



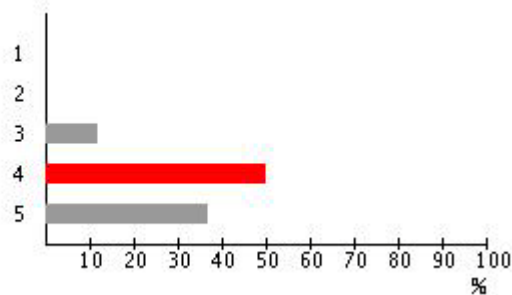
answer choice **1** **2** **3** **4** **5**
 distribution 0% 25% 12,5% 50% 12,5%
 Average (for numeric-answers): 3,5

Comment:

- LEAP : going deeper would be interesting Climate Interactive Exercise : quite useless, At first nothing was possible to negotiate and only with the new handout we can work. To receive a new handout after the first half is realistic, but have more to begin with a real range of option would be better. To allow computers to see to which extend the current accord will meet the target will also be interesting, especially for countries with a lot of representant. It is interesting because it also allow to see in one sight all the position of all stakeholders. CDM : interesting
 - I think the Climate Interactive Exercise was a bit interesting during the discussion, but I felt that the handout we had to do later was completely pointless, I did not learn anything from doing it and I didn't have the feeling that others I talked to did. Perhaps you can think of something else there.

5) How did you experience the quality of instructions and/or other support needed to do the course exercises?

LEAP



answer choice **1** **2** **3** **4** **5**

distribution 0% 0% 37,5% 50% 12,5%

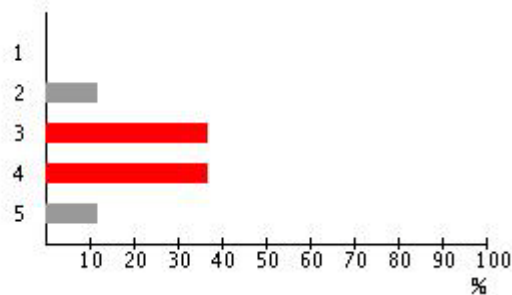
Average (for numeric-answers): 3,75

Comment:

- To have the presentation in advance would have allow us to take notes directly on pdf, which was not always possible.
- PPT´s usually only have key words and are almost impossible to review afterwards without a voice-over. "Sub-text" would be nice for the slides as a supplement to the PPT.

7) What do you think about the cohesion and balance of the course program? (e.g. focus, interaction and complementarity of topics and lectures, balance lectures / practical exercises, group work / individual work)

(1= poor balance / distribution ----- 5= very good balance and cohesion)



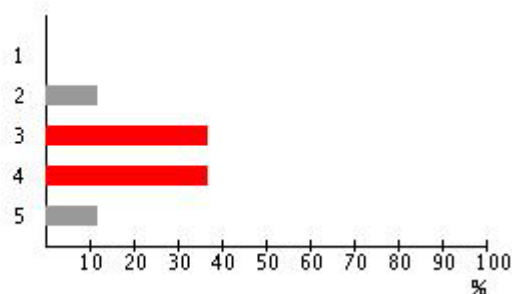
answer choice **1** **2** **3** **4** **5**
 distribution 0% 12,5% 37,5% 37,5% 12,5%

Average (for numeric-answers): 3,5

Comment:

- As I said before, this cohesion can be largely improved
- the course should not take such long time. It could be done with period I

8) How did the BILDA platform work for information sharing and course information?

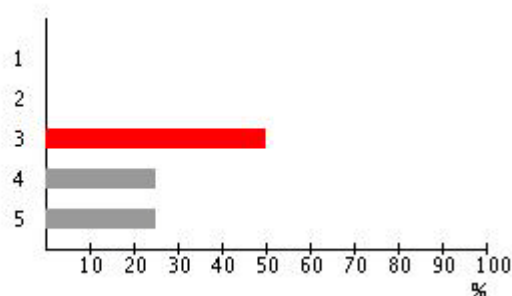


answer choice **1** **2** **3** **4** **5**
 distribution 0% 12,5% 37,5% 37,5% 12,5%

Average (for numeric-answers): 3,5

Comment:

9) How much do you feel you have learnt on the Climate Change Mitigation Tools?
 (1= learned very little; ----- 5= learned very much)



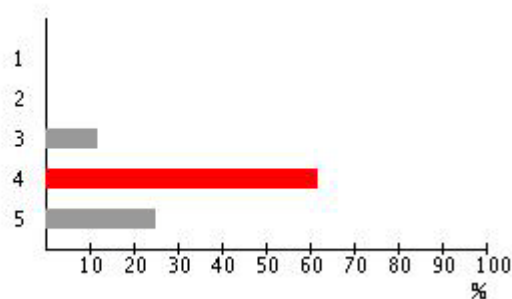
answer choice	1	2	3	4	5
distribution	0%	0%	50%	25%	25%

Average (for numeric-answers): 3,75

Comment:

- Could have learned far more, but the content was interesting though
 - Very interesting!
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10) The course entitles to 6 hp (4 weeks full time work). How does that reflect the requirements and work load you experienced in the course?
 (1= very bad equivalence; ----- 5= very good equivalence)



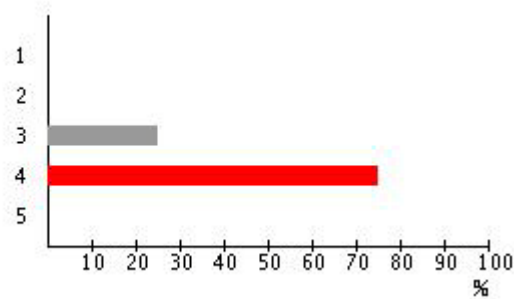
answer choice	1	2	3	4	5
distribution	0%	0%	12,5%	62,5%	25%
number	(0)	(0)	(1)	(5)	(2)

Average (for numeric-answers): 4,12

Comment:

- Few work is needed but the course content is very interesting.
 - I worked rather less than four weeks on it, but I work less for almost all my courses at KTH, so perhaps it's just a matter of comparison to my home university
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11) What is your rating of the course as a whole? Please, add eventual suggestions for future improvement.



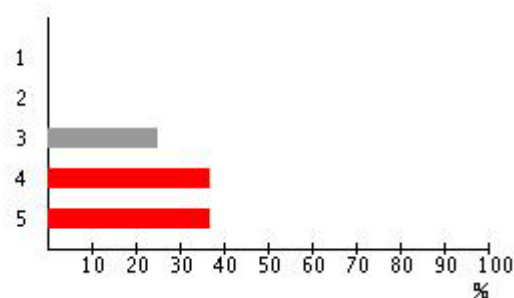
answer choice	1	2	3	4	5
distribution	0%	0%	25%	75%	0%
number	(0)	(0)	(2)	(6)	(0)

Average (for numeric-answers): 3,75

Comment:

- Try to invite some climate modeler to explain the physicals laws of Climate Change, I would have enjoy a model exercise of Climate Change (matlab based, or with an other software) A bit more technique on modelling would be extra!
- Instructions need to be clearer for the CDM/PIN part of the course. It would be very nice if future improvements could include deeper look into the climate change models that predict effects of global warming. We as students (and people in general all over the world) always hear about these climate models but nobody ever sees them. I think that needs to be in this course so students can get a view into the work that climate change scientists do. By all of this I mean an ACTUAL look at the models, the results and such, not some slide show a politician would look at but the actual science behind the computer simulations and the results. This is such a governing topic in todays discussion that it is to me very important to show this to students.
- As mentioned before: some lectures were extremely good and interesting! But the exercises were not that useful. I think it might have been better to just do two exercises but do them more deeply, for example give more time to learn LEAP and go deeper into a project than just the household demand.

12) Would you recommend this course to other students interested in climate change?



answer choice	1	2	3	4	5
distribution	0%	0%	25%	37,5%	37,5%
number	(0)	(0)	(2)	(3)	(3)

Average (for numeric-answers): 4,12

Comment:

- The course could have gone deeper in some topics : building, kyoto protocol (each time only seen with an overview), possible future regulations...
 - To be perfect try to avoid to much repetition in the lecture contents, add technique lecture and exercise to CC simulation, and gives 9hp if the technique side is really important. I would have enjoy also some real analysis of the Copenhagen failure: why it has failed and what to do to avoid this kind of failure. I don't remember if we have talked about what next to Kyoto, and where we are now in the kyoto protocol. To present for each countries if they have meet their target, and how they have managed to succeed (or not!)
 - Given improvements on CDM organization and if the course includes a scientific look into the climate change models, how they work and what kind of things they predict and HOW they predict it; then yes, absolutely.
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