

Evaluation results

Biogeochemical Cycles in the Earth System - an Overview (November, 2017)

Course details

Goal of the module is an overview over the global Earth System, its major components (Atmosphere, ocean, land surfaces and cryosphere), their interactions through exchanges of energy, momentum and materials, and the major physical, chemical and biological processes controlling these exchanges. A special emphasis is given to the role of the global cycles of biogeochemical elements and their modifications in the context of global change. The course was taught by Martin Heimann. Detailed information is provided on the following webpage: <http://www.imprs-gbgc.de/index.php/Courses/OverviewCourse2017>

19 out of 22 participants filled in the survey by Dec 14, 2017.

Survey results

Please assess the course in general.

The course stimulated my interest in this topic.

0% Disagree
6% Neither agree nor disagree
29% Agree
35% Strongly agree

I think that the level of difficulty of this course is appropriate.

0% Disagree
6% Neither agree nor disagree
65% Agree
29% Strongly agree

I liked the structure of the course.

0% Disagree
0% Neither agree nor disagree
29% Agree
71% Strongly agree

Overall, I am satisfied with this course.

0% Disagree
0% Neither agree nor disagree
41% Agree
59% Strongly agree

Comments

Instructor's presenting abilities were truly high. He was able to capture the audience. Hope he will keep teaching this course in the future.

Please assess the lectures.

The context of the lectures was clear to me (connexion to overarching topic of the course, embeddedness in general course structure).

0% Disagree
6% Neither agree nor disagree
41% Agree
53% Strongly agree

The level of detail of the lectures was adequate.

0% Disagree
12% Neither agree nor disagree
65% Agree
24% Strongly agree

I am satisfied with the contribution of the instructor.

0% Disagree
0% Neither agree nor disagree
41% Agree
59% Strongly agree

Comments

- It would have been nice to go into greater detail, but I guess that is difficult with an overview course like this.
- good
- Would have been nice to get a little more input - many things were told twice, whereas often we were told that Martin Heimann couldn't go into more detail because of time reasons

Please assess the practicals.

The context of the practicals was clear to me (connexion to overarching topic of the course, embeddedness in general course structure).

0% Disagree
18% Neither agree nor disagree
64% Agree
18% Strongly agree

The level of detail of the lectures was adequate.

0% Disagree
12% Neither agree nor disagree
59% Agree
29% Strongly agree

I am satisfied with the contribution of the instructor.

0% Disagree
12% Neither agree nor disagree
35% Agree
53% Strongly agree

Which parts of the course were especially good (and why)?

- Terrestrial carbon part, It provided new information to me.
- really well structured, easy to follow and the mix of information and arising questions/problems to answer practically were stimulating. related to the good structure, I liked the punctuality in the time plan, and the length of the lectures and the breaks felt appropriate. further, the instructor explained the topics and could answer questions in an easy-to-follow way
- The group project part.
- carbon cycle was very clear and deeply explained.
- Box model
- Prof. Heimann is a very engaging and excellent communicator. He has a very clear grasp of how to think about biogeochemistry at the global scale, and is particularly adept at explaining model development in an simple yet elegant manner.
- the part of anthropogenic climate change was interesting for me because in the past I worked on related projects at local scale
- the lectures where great, giving a great overview of the major topics
- Holocene climate variations
- The course covered almost every aspect of global carbon cycle and helped me to gain a broad understanding of biogeochemistry.
- one person presented the whole course
- embedding of the recruitment talks in the course - maybe it was just a coincidence, but when talking about the methane cycle on Tuesday, the external talk fit perfectly and the same with the talk about land use on Thursday. Good overview over general issues with climate change and how it is linked to the carbon cycle
- I do not regard any part as outstanding. Yet, The carbon (CO₂ and CH₄) cycle were quite interesting. Likely because there was a little more time contributed to these parts and the additional level of depth made it more interesting
- Lectures: a lot of examples, all information is visualised
- Best is to hear the professor experiences. It is fun to think most of what he explained to us was still unknown when he was a student like us and most things have been discovered during his career. What will humans know in 30 more years? :)
- Paleoclimatology was especially good, maybe because the instructor is interested in this topic.
- expressing the modelling methods
- Last two days were very nice because we got an understanding of how to discuss and evaluate model results, plots etc., other days were nice as well, but more focused on the topics itself

Which parts of the course were not so good / not so fitting / not well enough presented?

- on some topics, such as the nutrient cycles, the overview was really rough. however, although there could have been some more details, they are probably covered by another core course
- The course was aptly taught.
- Nitrogen and Phosphorous cycles could be more detailed explained
- It would have been nice to go over the more complicated model implementations (in the Wolfram cdf player) in more detail.
- the part of the couple and uncouple models was not so easy to understand.
- The practical and presentation was a bit messy, some people didn't show up, others didn't really contribute. Maybe have a fixed time in the course for the practical work could fix this.
- Comprehensive Earth System models
- I would like to learn more knowledge about terrestrial carbon cycle
- Quite a few things like the gradient between northern and southern hemisphere or some aspects of modelling were told twice - more input would have been nicer -Quite constricted to modelling issues - would have been good to talk a bit more about measuring and fieldwork as well
- Maybe missing a bit more on limiting nutrients P vs N (how old islands are P limited and new ones are N limited, how amazon is P limited and it comes from the Andes, etc.), it is a cool topic and makes a good link between the P cycle and the N cycle. (still the course was really complete and time would limit for such details)
- There was a course especially for terrestrial carbon cycle, which was well presented as a whole. Yet there contribution of soils was not enough presented.
- All parts were presented well.

Do you have other suggestions for a future course?

- If there is a lecture about Water cycle, it would be helpful for IMPRS students.
- Personally, I would benefited from a more explicit walk-through of the mathematics of model development.
- Go into more detail regarding the cycles - talk about where the data is coming from and how it is collected - besides the top-down view, the bottom-up view might also be nice
- I enjoyed attending this course!
- More about different modelling approaches