Course Report AS7022 HT19

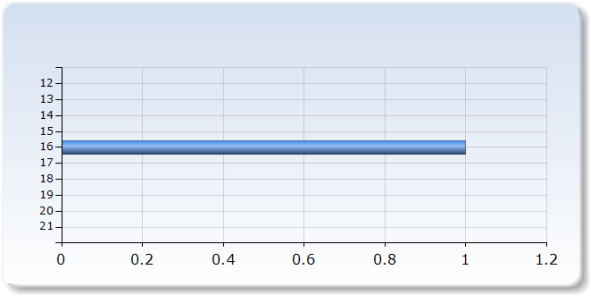
Respondents: 1
Answer Count: 1
Answer Frequency: 100.00%

. Teacher

Teacher
Jens Melinder

. Number of students who took the exam

Number of students who took the exam	Number of Responses
12	0 (0.0%)
13	0 (0.0%)
14	0 (0.0%)
15	0 (0.0%)
16	1 (100.0%)
17	0 (0.0%)
18	0 (0.0%)
19	0 (0.0%)
20	0 (0.0%)
21	0 (0.0%)
Total	1 (100.0%)



. Number of students who passed the course (at the time of answering this survey)

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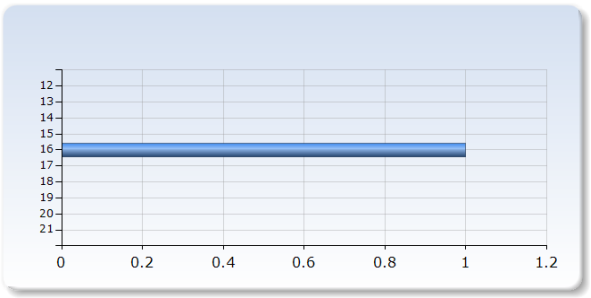

. Description of changes since the previous time the course was given.

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The course has been heavily changed since the last time it was given.
- The lectures have been changed to be more interactive. Roughly half of the lecture time is used for a traditional lecture, the rest is spent on discussion questions and problem solving.
- The students get reading assignments to do before each lecture. This is tested with a short multiple choice test in the beginning of each lecture. These tests are graded and account for 20% of the total course grade.
- The problem solving sessions were removed, instead time was allocated for problem solving within each session.
- The examination was changed with 20% of the grade coming from multiple choice tests, 20% from seminar presentations and discussion, and 60% from a written exam (the course did not have a written exam before).
- The contents were slightly shifted, containing less large scale structure and galaxy evolution, and more on active galactic nuclei and gravitational lensing.

. What are the course's strong points according to the students (summary based on the numerical results as well as their free text answers)

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The students seems to have enjoyed the lectures very much and found the subjects interesting. The discussion question part of the lectures was mentioned by multiple students as being interesting and useful. Many of the students enjoyed the seminar presentations.

. What are the course's weak points according to the students (summary based on the numerical results as well as their free text answers)

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Many of the students thought that there was too little time for problem solving, often the discussion questions would run over time and the problem solving dealt with very fast. Several students remarked that they didn't really like the course book and that it felt a bit old.

. The teacher's analysis of the course

The teacher's analysis of the course

The rework of the course worked quite well, with the interactive lectures being well attended and very active. The students seem to have picked up a lot of knowledge during the lectures and in the discussions. The seminars were also largely successful, although the time slot for the presentations was far too short (I had planned for 12 students, and 17 showed up). The reading assignments and multiple choice tests are designed to get the students to read before coming to the lecture, and I think that worked, the discussion sessions were very active and the students came up with interesting answers (sometimes wrong, but often correct).

The problem-solving part of the lectures did not work as planned. This was due to lack of time during the lectures, the traditional lecture and discussion sessions often took up almost all of the available time and the students were just given solutions to exercises instead of having time to sit and work. This was reflected in the exam, where most students lost the most points on problem-solving tasks.

The content of the course is very broad, and it was hard for me to figure out what to focus the lectures on. In the end I think I reached a good compromise between width and depth, but the overall content is still a bit too much to cover during the traditional lectures.

The course book really need to be replaced, it's now over 10 years old and is lacking in a few content areas (while going into unnecessary depth in some less important areas). The book is also quite badly structured and hard to follow for the students. The exercises in the book are very varying in difficulty, some are very useful others not. Since the course now has an exam, there is a need for more and better exercises. Unfortunately there were no other good options available when the course was planned.

. Conclusions as well as suggestions for improvements

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- Keep the interactive lectures pretty much as they are (including MC tests, reading assignments, discussion questions and problem solving). Maybe have only one discussion question per lecture (most of the time we only had time to really dig into one of them anyway).
- Rework the problem solving parts, really needs new exercises to work with, possibly jig-saw exercises for the groups to work with (needs development time!). Separate exercise compendium?
- Change book, possibly to the same used by the Galaxy formation and evolution course (first chapters). This book does not have exercises though.
- In connection to the book change, go over what areas that should be focused on, and change the traditional lectures/discussion questions accordingly, while making sure that the content is not too large.