Course Report AS5002 HT19
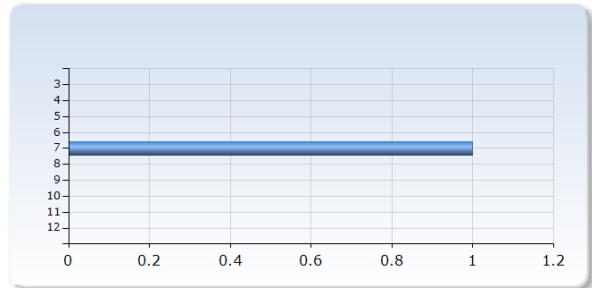
. Teacher

Teacher

Evan O'Connor

. Number of students who took the exam

Number of students who took the exam	Number of Responses
3	0 (0.0%)
4	0 (0.0%)
5	0 (0.0%)
6	0 (0.0%)
7	1 (100.0%)
8	0 (0.0%)
9	0 (0.0%)
10	0 (0.0%)
11	0 (0.0%)
12	0 (0.0%)
Total	1 (100.0%)

. Number of students who passed the course

Number of students who passed the course	Number of Responses
2	0 (0.0%)
3	0 (0.0%)
4	0 (0.0%)
5	0 (0.0%)
6	1 (100.0%)
7	0 (0.0%)
8	0 (0.0%)
9	0 (0.0%)
10	0 (0.0%)
11	0 (0.0%)
Total	1 (100.0%)
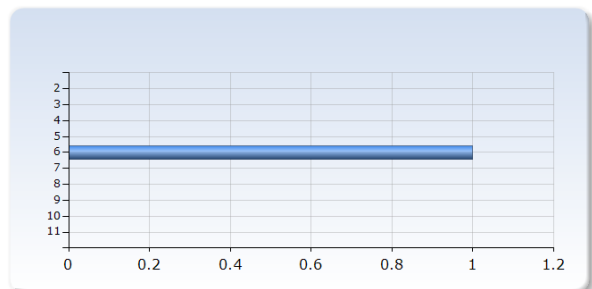
. Description of changes since the previous time the course was given.

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In 2019, the laboratory aspect of the course was redesigned from scratch. We used modern tools, like python, jupyter notebooks, and MESA (Modules for Experiments in Stellar Astrophysics), as well as modern astrophysical data extracted from the Gaia archive in order to determine the age of a particular open cluster. The students individually prepared a paper based on the methods and results. Overall this change went well and we assessed the planning for improvements in the future, including making the lab more appropriate for the in-class time available.

. 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 structure of the lectures and class. The students thought the course was well structured, had good course materials, were able to access information needed (all three of these questions receiving three 5's and one 4 on a 5 point scale). Many comments were positive to the flipped classroom approach (75% [3 out of 4] preferring to traditional teaching methods) including references to doing lots of exercises in class instead of listening and transcribing lectures.

. 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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There did not seem to be any glaring weak points, however, there are several comments/numerical answers that suggest weak points in the class. One respondent gave a 3 out of 5 for "It was clear to me what I was expected to learn". One respondent also commented on the length of the final exam. One respondent would have liked more teaching hours and another would have liked more time for the laboratory.

. The teacher's analysis of the course

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This course went well. A lot of the students were very engaged, seemed to enjoy the content, teaching style, and learned a lot about stellar evolution. The updated laboratory was a success and I think engaged the students in research-like projects while introducing them to new methods and techniques.

. Conclusions as well as suggestions for improvements

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In conclusion, this course was successful. Some areas where improvements could be made were identified. In future versions of this course I would suggest further improving the laboratory to become more research-oriented and possibly more inquiry-based rather than having a concrete plan for the students. However, this takes time to ensure the students are able and up to the task and not overwhelming them with new concepts.