Towards the end of the course, each student is asked to present a paper on a topic in single-star or binary evolution to the rest of the class. The presentations will likely take place in the last lecture week in December.

This is the procedure:

* **Choose a topic**, either by making a choice from the list below, or by proposing a topic yourself, as long as it is within the scope of the course. Find one (or more) paper(s) discussing your topic, and try to distill the important information. You can find and download papers published in astronomical journals via the ADS abstract service. When you have chosen your paper(s), discuss your choice with the teachers before you proceed. You can submit your choice in an Assignment, which will be announced in November.
* Subsequently, **prepare a talk** of at most 15 minutes based on your paper(s). This time will be strictly adhered to. Often there will be many aspects to the problem, too much to discuss in 15 minutes. In your presentation you should give a brief overview of at least one aspect of the topic of choice, with a clear introduction and conclusion. It is more important to be clear than to be complete! You should build on the knowledge we gained in the lectures: use this as a starting point, without repeating what everybody should already know from the lectures.
* The presentation will constitute 30% of the final grade. **Grading** of your presentation will be based on the following **criteria**:
  1. how well you explain the main result(s) and conclusion(s) of the paper (keeping in mind the background knowledge of your fellow students),
  2. how well you explain the connection of these results to what we learned during the course,
  3. the structure of your talk and clarity of presentation.

Below is a (non-exhaustive) list of possible topics; you can also suggest a topic yourself. Note that the topic of your presentation should be different from the topic your MESA case study.

1. Evolution of the first stars (population III)
2. Evolution of super-AGB stars
3. Formation of black holes in stellar core collapse
4. Testing stellar evolution theory using binary stars
5. Effects of rotation on the evolution of massive stars
6. Effects of binary evolution on stellar rotation
7. Properties and evolution of contact binaries
8. Formation and evolution of blue stragglers
9. Binary progenitor evolution towards Type Ia supernovae
10. Progenitor evolution of Type Ib/Ic supernovae
11. Progenitor evolution of gamma-ray bursts
12. Progenitor evolution of binary black hole mergers