

AER1315: Report and Oral Presentation Description

Assignment: Provide a review of the recent scientific literature in a specific area related to sustainable aviation. In the case of MASc and PhD students, the topic should not be aligned with your thesis topic. The goal is to provide a detailed explanation of a major scientific or technical issue relevant to sustainable aviation and the research that has been performed in order to resolve it. You are not expected to perform any original research or calculations for this project. If there is debate within the scientific literature, this should be highlighted. Emphasis must be on academic literature, not popular media. Do not use any sources which are available only on the internet. If you are in doubt about what constitutes academic literature, discuss this with the library staff or the course coordinators.

Proposal: The proposal can be no more than three pages in length and should describe the proposed topic in broad terms. A list of the papers to be reviewed, typically ten to fifteen, must be included within the three-page limit. Reports should typically focus primarily on the most important papers published on the topic within the past five years, i.e. the report should cover a topic of current interest, as well as relevant seminal papers. Deviation from this, for example the choice of a topic that requires review of papers mostly published more than five years ago, will require convincing justification in the proposal. Use the following format for the citations:

Author(s). Article title. Journal name, volume(issue), year.

Interim Report: The interim report should be a draft of the final report; this means that it should be complete. You will receive feedback to be incorporated in the final report. The report must be no more than fifteen pages in length, including title pages, references, figures and appendices, and must follow the format associated with AIAA conference papers. Each paper reviewed should be discussed in some detail and analysed critically. In particular, if there is disagreement or debate within the scientific literature, emphasise this and explicitly contrast the papers where this occurs.

Final Report: The final report should incorporate the feedback provided based on the interim report. Length and formatting requirements are the same as for the interim report.

Oral Presentation: Students will deliver an oral presentation based on their report. It should be aimed at the other students in the class, who have a technical background in aerospace engineering, but not a detailed understanding of the particular topic. The length of the oral presentations will be finalized once the class size is known but will be approximately 15 minutes plus 5 minutes for questions from the audience and the examiners. Presentations should consist an electronic presentation in a standard format submitted at least 24 hours ahead of the assigned presentation time. Students will be marked both on the electronic materials and the oral delivery, including answers to questions. The presentation times will be determined randomly. All students in AER 1315 are required to attend all of the presentations.