

ATM 400 – Research Project Overview Fall 2009

Purpose:

Research projects are a vital portion of any higher-level atmospheric science course. This project will give you an opportunity to examine a topic that we do not specifically discuss in lecture. Additionally, this project will provide you a glimpse of the research process and allow you to use the tools you gain in this class.

You may research any topic in synoptic meteorology that is of interest to you. Remember though that this is a class project and you need to keep the project reasonable. You need to finish this project in one semester so you do not want to bite off more that you can chew.

Length:

2000 word maximum

Timeline:

Knowing that most students tend to wait until the last minute to do a research project, I have implemented a schedule for the components of the project. Here are the due dates:

Th 17 Sept – Topic Idea
Th 6 Oct – Proposal
Th 29 Oct – Detailed Outline
Th 19 Nov – Paper Due
Tu 3 Dec and Th 5 Dec – Oral Presentations

Topic Idea:

Please send me your topic idea via e-mail on or before the due date. Feel free to discuss topics with me prior to making a final decision. Topics will be allowed on a first come, first serve basis.

Proposal:

The proposal should be a one-page summary that discusses your research project and the methods you are going to use to research it. You will need to include any references and a description of any datasets you plan on using.

Detailed Outline:

In this step, you should break your paper down into the sections and subsections that are required to have the best organization. Please include your reference list at this point. See also **Writing and Presentation Tips for the Research Project**.

Paper:

The ultimate goal of research is to have your findings published in a refereed journal. Thus, the layout of your paper should follow the basic layout of an AMS journal article:

1. Abstract

2. Introduction
3. Data and Methodology
4. Results
5. Discussions and Conclusions
6. References

The abstract should be about 150 words, and provides an overview of your main findings. The body of the paper should be about 5–7 double spaced pages long. You should also include a title page (which includes your abstract), references, and figures, all on separate pages from the body. Only show figures that are necessary to make your point. Make sure that your final draft is well thought out, focused, and grammatically correct.

Presentation:

The oral presentation portion of your research will be a 10–12 minute overview of (1) what you did, (2) how you did it, and (3) what you discovered. You may either present by using PowerPoint or overheads. The presentation should be succinct and reveal a good understanding of what you did.