

Research Project

Due Dec 3, 2021 by 11:59pm **Points** 100 **Submitting** a file upload
File Types pdf **Attempts** 2 **Allowed Attempts** 5
Available until Dec 10, 2021 at 11:59pm

This assignment was locked Dec 10, 2021 at 11:59pm.

Math 596 Climate Math: Write a research paper on “Climate Mathematics” for a problem of your interest and using the data you can find

Due: November 29, 2021/Monday 11.59 PM via BB

This is a group research project, but it is to be written and submitted by each individual student. Each group has six (6) students. Each group must meet twice before October 14 to make the following decisions:

- Role assignment: (1) organizer, (2) notetaker, (3) data supporter, (4) method developer, (5) code leader, and (6) reporter.
- What climate problem you wish to solve?
- What data and method to use?
- What tentative conclusions you expect.

The Reporter will write a one-page summary of summary of (ii), (iii) and (iv) and submit it to me by October 15/Wednesday. I'll give you some suggestions for your research. Feel free to talk to me during the office hours or after the class.

You can organize your own group of six people.

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The requirements, format and grading rubric of your research paper are as follows.

1. Title page (3%): This includes the title of the report, author's name, affiliation (you may use the name of your fictional affiliation or consulting company's name and your home address), contact information (email, phone, and website), and date. This is a single page. You need to read your research materials first. From your reading, you can determine a climate problem to solve, find data, provide a feasible method to solve the problem, and conclude and discuss. You can write a tentative title and revise it after you finish the report body.
2. Executive summary (or called Abstract) (7%): Limited to one page about the main results and conclusion of your paper. This is another single page. Write this one **after** you have written the paper body below.
3. Introduction section (15%): This section should include the problem identification, i.e., a statement of the problem and the background of the problem; and the abstraction of the problem, i.e., selection of your research method. The purpose of your research is to provide your client or audience a clearly written document which can be easily used by the audience and hence help them attract more followers. You need to cite at least one reference (e.g., your data source). This section is about 1-2 pages.
4. Data and method section (25%): This section should include the information that makes your work credible. It should include data and/or diagrams, method and process of your research, and feasibility justification.
5. Results section (35%): This section includes problem solutions, interpretation of the solutions, and positive and negative impacts of the solutions. If possible, include meaningful quantitative results. You should attempt to interpret your solutions using words, data and diagrams for your audience. Please make some sensitivity analyses on your solutions by checking if your solution is robust and if it is sensitive to the small changes of social, political and technology conditions.
6. Conclusion section and discussion (10%): Summarize your work and discuss other alternatives to the problem. Discuss pros and cons of your method.
7. References section (5%): List at least 3 references (e.g., one for data, one for method, and one for other) in a consistent citation format

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You should use double-space and 11-point or 12-point font size. Your paper should be at least 10 pages long, including a title page, an abstract page, and eight or more report body pages. It is usually a good idea to include some figures and tables.

- **11- or 12-point font size equivalent to the Times New Roman**

- **At least 10 pages**
- **Include data, figures or/and tables**
- **Computer codes can be included as an appendix, but will not be counted toward the 10-page requirement.**

Past Sample projects

- [Sample 1](#)
- [Sample 2](#)
- [Sample 3](#)