Project : Geology

This handout contains the information you need to get going on your project. There are two parts to the handout. This first part has information about due dates for the project, the report you will be preparing, grading criteria, and a list of students doing the project to help you in forming a group if you choose to do so. The second part has a brief summary of your topic and a list of key words to help you head in the right direction. In the next couple of weeks you will get one more handout which will contain problems for you to solve as part of your project.

The material I'm giving you really is just a bare-bones minimum to help direct you. You are responsible for finding references and doing your own investigating and learning. However please feel free to contact me, in person or by email, for help finding references or working the problems or for general guidance about the projects, and to give me feedback about how it is going.

Due Dates

There are two due dates for the project: March 1st, March 29th. On March 1st, you should turn in:

1. At least two references which you have found for your project.

2. An explanation or definition of at least two of the key words for your topic.

Turning this material in on time will count towards points in the determination of your total grade on the project.

On Thursday, March 29th your overall project report is due.

Each person will be responsible for preparing his/her own report, including writing up his/her own solutions to the problems.

[1] **Office hours:** Monday 1:30-3pm, 5-6pm, Wednesday 2:30-3:30pm, Thursday 1:30-3:00pm, Friday: 11:30-12:30 or by appointment.

Reports and Grading Criteria

Your report should include some version of the following 5 parts. They do not have to be arranged the way I list them here, but all should be included in your report in some form or another.

1. (**10 points**) **General Discussion** Introduction and generalities for the project (could include why you chose this project, background about the field of application, goals of the project), definitions and results from Matrix Algebra used in the project, definitions and discussion of results and ideas from the field of application used in the project. When you state mathematical results that you use, try to explain some of the mathematics behind why the results are true–present a derivation if you can, or, if that is too difficult, give a sketch or an intuitive idea of how it works.

2. (**25 points**) **Solutions to Problems** Give your solutions to the problems I will provide for your topic. It is very important not only to give a correct answer but also to give a thorough explanation of your solution. You should have a clear explanation of each step, an analysis of what results apply to what step, etc. This is not like just working out a usual homework problem–explain in words what you are doing and write sentences.

3. (**6 points**) **References** A list of the references that you used, people you consulted, people you worked with, places you found help. Included in the 6 points will be turning in on time your two references and key words on October 30th as mentioned above.

4. (**2 points**) **Comments** Your comments on how interesting you found the project, whether you feel that the time you spent on this was worthwhile and whether it might help you in the future or lead to anything for you, and suggestions to me for improvements in case I do projects like this again.

5. (**7 points**) **Presentation** This includes innovation in presenting the material of the report, clarity and neatness, flow, design and organization of the report, and creativity used in explaining the ideas.

Project Details: Geology

I would suggest reading the photocopy of the chapter that you gave me till say page 118. I will try to make the questions up by Tuesday of reading week, at the very latest by 29th of February.

For the March 1st deadline, just turn in definitions of a couple of terms that you have understood from the chapter. Also please give me the name of the book and any other references that you may have found.