Front Page:

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| Title: | Project Geology |
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| Course ID | ING130 - Part II “Welcome to the study of the Petroleum Sciences” |

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| Self-assessment (describe the work in the group):  The work in this project were divided equally, but also dependant on whom had the better knowledge in for example MATLAB and writing. In addition, we also worked together to create a better learning environment, and we all could learn from each other. We met up at school and sat together to work on the project. Although, sometimes there were obstacles that hindered us all from meeting at school, for example jobs.  Each one of us got responsibility to write some part of the project, and if any of us got stuck we helped each other. |
| Describe your experience with the ING130 course (what worked for you and what can be done better next year):  The course was interesting and practical. It was great that we got a small introduction to all the different fields within petroleum engineering. In addition, there could be small problems for us to solve during the different lectures, so that we could get a better understanding of what we were supposed to do if we would have got that specific topic for the project/home exam. |

# Project Geology

Sveinung Huglen Bratten, Pedram Khanmoradi Gargari, Einar Holst-Larsen, Jone Lorentzen, Magnus Fosnes Ramstad.

## Abstract: (max. 100 words)

In the abstract you summarize the report. Use text only. Do not include references, figures or tables. See more on this on page 48-50 in (Peat, Elliott, Baur, & Keena, 2002).

Your part of the document should be maximum 8 pages - the total length is less than 10 pages.

Remember, writing is not easy. It is even more difficult when you must seek relevant background information, pair it with your contribution and to synthesize it into a concise story. The rewards of becoming a good writer is enormous. Take this skill seriously in your education along the other information needed to pass exams. The pdf-book that I put on Canvas (Peat, Elliott, Baur, & Keena, 2002) can hopefully help you. Because, good writing skills makes people understand you – you get a voice. Concise logic writing enables you to understand your data better (“*the world understands you – and you understand the world*”).

Here you will structure text according to what was presented in class using sections divided into introduction, method, results, discussion, and conclusion.

The purpose of this project is to create code in MATLAB so that we can use the code to calculate one hundred different strikes and dips, and to compare them to premeasured dips. To calculate one strike and dip, we had to find three points on an anticline in Google Earth, which we then put in the code we made in MATLAB. The result we got is that the further north we go along the formation, the steeper the dip is. This is also the case for the premeasured dips.

## Introduction

In the introduction you describe why this field is relevant and where this knowledge applies. Writing a good introduction motivates the reader to be interested in your work. Have a look at page 51 and onwards in (Peat, Elliott, Baur, & Keena, 2002).

## Method

The aim is here to describe to the reader how you obtained your results. Describe the relevant theory and how the theory was implemented into MATLAB. (Add the matlab script, the .m-file, in the appendix). Make sure that the method section matches the result section, i.e. only introduce concepts and methods that you have results for afterwards.

## Results of your investigation

The result and method section should match 100%. Answer to the specific questions that were raised in the introduction with the tools described in the method. Do not show results originating from tools/methods that were not introduced. Tell a concise story, without any diversions, and help the reader to understand your results. This is neatly described from page 63 and onwards in (Peat, Elliott, Baur, & Keena, 2002).

## Discussion

Re-iterate the main findings and put it in context with the questions raised in the introduction. This is the time to be honest with the limitations and underlying assumptions for your study. Try to explain inconsistencies, and put data in context with each other. Focus on discussing the main and most important ideas, how your results help to improve the understanding/knowledge of your field. You may also present alternative viewpoints that has been published in the scientific literature.

## Conclusion

Describe the initial problem and the main results presented in the paper. Put your results in context and describe how your results can be further applied in future research.

## References used

List the references.

## Format Requirements

Font type: Times New Roman

Font size: 11

Spacing between lines (After & before): 0

Margins (top, bottom, left and right): 2.54 cm.

Tables with caption above the table.

Figures with caption below the figure.

All figures and tables must be referred to in the text. The first figure that is referred in the text should be given the name Fig. 1 (or Figure 1, or Figur 1). The second figure (or table) should be listed as 2, etc.

Distribute your text evenly on each paragraph (Ctrl + j)

Use page number.

Language: English (United Kingdom), Norsk (bokmål), Norsk (nynorsk)

Make sure all sentences do not have any spelling mistakes and is grammatically correct.

Other tips:

* Mark your whole document by “Ctrl + a”.
* Update your document by the ‘F9’ button.
* Use the navigation pane (‘View’ 🡪 tick off ‘Navigation pane’)
* Include equations by “Ctrl + n + e + i”.
* A tip for how to get automatic equation numbering in Word can be seen here: <https://www.youtube.com/watch?v=JcB4nQ2AYts> (I advice you to learn this ASAP– extremely useful!). Another video: <https://www.youtube.com/watch?v=9YGTH4WrY_8>
* When inserting figures and tables: Right click on the object and press ‘Insert Caption’. Choose your label and write in the caption.
* When you refer to a figure then use the ‘References’ 🡪 ‘Cross reference’ etc.
* Last tip: If you have a practical problem then YouTube is fantastic at helping you
* With regards to references use: References🡪Insert Citation 🡪 Style: APA. Example (Aadnøy, 2010).

Write in the sources that you use. Make sure that you take referencing EXTREMELY serious.

Standardskjema for vurdering av master- og bacheloroppgaver ved UiS:

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| --- | --- | --- | --- | --- |
|  |  | Max poeng | Poeng | Kommentar |
| Innledning og teoridel  (maks 20 p) | Faglig forankring | 5 |  |  |
| Teoretisk innsikt | 5 |  |  |
| Målbeskrivelse | 5 |  |  |
| Eget bidrag | 5 |  |  |
| Metode og arbeidsform  (maks 25 p) | Ferdighetsnivå | 5 |  |  |
| Arbeidsform | 5 |  |  |
| Arbeidsinnsats | 5 |  |  |
| Selvstendighet | 10 |  |  |
| Resultater og diskusjon  (maks 35 p) | Arbeidet | 15 |  |  |
| Analyse og diskusjon | 10 |  |  |
| Kritisk refleksjon | 5 |  |  |
| Eget bidrag / måloppnåelse | 5 |  |  |
| Fremstilling  (maks 15 p) | Struktur | 5 |  |  |
| Språk | 5 |  |  |
| Form | 5 |  |  |
| Muntlig  (maks 5 p) | Presentasjon ved avsluttende eksamen | 5 |  |  |
|  |  | 100 |  |  |