WRITTEN EXAMINATION

SGO1910 – Geographical Information Systems

November 26th 2014
(3 hours)

No support materials, except for dictionaries that have been submitted to the Faculty of Social Sciences for control, are permitted.

Results will be available in Studentweb on December 17th from approximately 3.00 p.m.

The results are considered official upon publication in Studentweb and students are responsible for checking their result at this time. If you want an explanation for your grade, you must apply **within one week** after the result is published. The deadline for appealing your grade is three weeks after the announcement of examination results, or three weeks after an explanation of the grade has been given. Information on procedures for requesting explanations and appeals is available on the course page.

This examination paper consists of **2 pages,** including this page.

The candidate must submit both the original and the copy of their examination answers.

NB! Make sure the copy is legible. **No draft is permitted!**

Remember to write down your candidate number for later use.

The exam consists of two parts. Part 1 counts - 25 % - and part 2 - 75% - in the grading. The exam can be written in English or Norwegian.

Make sure the copy is legible.

Part 1. Short answers (25 % of exam grade)

Describe the following GIS concepts briefly (illustrate if necessary).

1. Spatial Autocorrelation
2. Raster
3. Longitude and Latitude
4. Universal Transverse Mercator (UTM)
5. Spatial Sampling

Part 2. Essay (75 % of exam grade, each question accounts for 25 % each)

Answer three of the following four questions as completely as possible.

1. Is it fair to say that an undocumented dataset is a worthless dataset? What kinds of documentation add value to a dataset?

2. Describe sources of uncertainty and error in spatial data. How is uncertainty introduced into the data, and at which stages in the GIS process?

3. What is generalization and why is it necessary?

4. In their paper "GIS and Mapping", Kent and Klosterman describe some common mistakes planners make in preparing maps. List and describe three of them.

Good luck!