

Evaluation of the BSc program at Department of Geosciences

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The present evaluation is based on a questionnaire to BSc students, carried out April-May 2012, and represents an ‘*in-house evaluation*’ made by one member of the scientific staff at the Department of Geosciences.

The responses to the questionnaire were anonymous.

The present evaluation attempts to summarize and interpret some of the main findings from the questionnaire presented to BSc-students April-May 2012, and attempts to draw a few conclusions about how to improve the standard of the current BSc program.

1. Background

Background information (Q 1)

The questionnaire was sent to 144 students, and 47 answers were received, about 33 %. The answers are rather evenly distributed with regard to student progression in the BSc study.

The majority of answers (about 73%) were submitted by students within *Geology and Geophysics*, about 10% by students within *Hydrology*, and only about 2% by *Physical Geography* students. No students within *Geomatikk* answered the questionnaire. About 15% was undecided as to their main focus of study in April-May 2012.

It might be noted that not all 47 students answered all questions, in some cases for obvious reasons, in other for unknown reasons. In one case (Q 5.1) the number of answers (53) even exceeds the number of students (47) taking part. Obviously, there are a number of statistical uncertainties involved with the questionnaire, and in what follows, for that reason only approximate numbers are referred to.

2. Meeting the BSc program within geosciences

Initial information received on the BSc study at the Department of Geology (Q 2)

Most (about 53%) students had received their initial information on the BSc study at the Department of Geosciences by the *Internet*. About 21% found this information in the *official*

handbook, while the rest received this information from other sources (e.g. friends and family).

This emphasizes the *high importance of the Internet* as a source of information for forthcoming students of Geoscience.

Main motivation for applying for the BSc study at the Department of Geosciences (2.3)

The main reason for applying differs among the students, ranging from '*interesting study*' to '*random, based on advice from former teacher*'.

Based on the answers given, however, the dominant motivation is clearly based on a *pre-existing interest for Geoscience*, followed by considerations on *future job possibilities*.

Quality of information received on the BSc study at study start (Q 2.4)

The majority (about 51%) were *satisfied* with the level of information received, while about 26% characterized the information as *not entirely satisfactory*. Two smaller groups characterized the information as either '*bad*' (about 13%) or '*good*' (about 11%).

The background for characterizing the information provided as '*not entirely satisfactory*' or '*bad*' was to some degree detailed by the answers provided to the following part of the questionnaire (Q 2.5).

Lacking information at the begin of the BSc study (Q 2.5)

Also to this question lead to a wide range of answers, ranging from '*do not remember*' to '*only little information relating to future job possibilities*'.

However, the most frequent answer was by far '*no*', reflecting the general high level of satisfaction signaled by the answers to the previous question (Q 2.4).

Among the remaining answers there were suggestions for improved (and earlier) information relating to timing of field excursions, the amount of workload, possible choices of free themes in the study program, the structure of webpages, etc., without any specific criticism pointing itself out as being dominant.

The criticism relating to timing of field excursions may be due to the fact that many field excursions take place early in the autumn term, perhaps only few days after the final deadline for student applications. From a practical planning point of view (booking of accommodation and transport), an earlier application deadline might therefore be considered, as the excursions often must take place late August or early September for weather reasons, which are not controllable.

Has the study program been as expected (Q 2.6)

The majority (about 63%) answer 'yes' to this, while about 15% answers 'no'. About 23% remain undecided on this issue. Altogether, satisfaction from nearly 2/3 must be considered quite good, and positive answers to this question exceeds the number of unconditionally positive answers to the question (Q 2.4) on the level of information received on the BSc study at study start (see above).

The background for these responses is detailed in the following part of the questionnaire (Q 2.7).

Positive elements in the BSc program (Q 2.7).

The character of positive elements differ considerably among the answers submitted (about 65% of all answers), but 'good lectures' or alike is clearly the most frequent statement. In addition answers like 'excursions' and 'quality of the social environment' are also typical.

Negative elements in the BSc program (Q 2.8)

Here answers differ more than was the case for the above question (Q 2.7), even though these answers represent only about 15% of all answers submitted (Q 2.6).

As examples can be mentioned the following answers:

- Excursions with '*too much driving in relation to the amount of learning*'
- unserious lectures
- too little information about the study program
- too many different themes in the early part of the study, many of which are not representing my main interest
- too many courses with mathematical content
- too many students in classrooms
- too little information before departing on excursions

3. The structure of the BSc program for people taken up autumn 2010 or later

Information about possibilities and limitations relating to programs with high or low mathematical content (Q 3.1)

The biggest group of answers (about 39%) was '*satisfactory*', while another big group (about 33%) answered '*not entirely satisfactory*'. Two smaller groups answered '*good*' (about 17%) and '*bad*' (about 11%), respectively.

In general, therefore, there appears to be a rather high level of satisfaction with the structure of the BSc study for students taken up within the last two years, but still with room for improvement.

Choose of study, high or low content of mathematics (Q 3.2)

The biggest group (about 64%) had chosen the study program with little mathematic content, while about 33% had chosen the program with high mathematical content. Less than 3% was undecided.

Motivation for choosing high or low content of mathematics in the BSc study (Q 3.3)

The range of motivations was considerable, but *lack of knowledge and/or interest in mathematics* is frequently mentioned.

Another motivation mentioned, but less frequently, was *interest in mathematics* or the *feeling that having a strong mathematical background would provide the student with more options* in the future study.

The semester workload (Q 3.4)

About 73% considered the workload as fair, while about 22% believed that it was to high. A small group, about 5%, considered the workload as too little.

Based on this, it appears that the workload is generally considered as being fair.

The information received about choice of study focus (Q 3.5)

The most frequent (about 36%) response to this question was '*not entirely satisfactory*', followed by (about 31 %) who stated that the information received was '*satisfactory*'.

The remaining part of the responses was '*good*' or '*not applicable in the moment*', about 8 and 6%, respectively.

4. The structure of the BSc program for students taken up autumn 2009 or previously

Information given about choice of study focus (Q 4.1)

The dominant answer to this was negative. About 36% characterized the information as ‘*bad*’ or (36%) ‘*not entirely satisfactory*’, meaning that more than half of the answers (14) were negative.

About 29% characterized the information provided as ‘*good*’.

Comparing with Q 3.1 and Q 3.5, students taken up autumn 2010 or later expressed a higher degree of satisfaction with the information given.

The semester workload (Q 4.2)

About 54% considered the workload as ‘*fair*’, while no less than about 39% considered it as being ‘*too high*’. Less than 8% considered the workload as ‘*too small*’.

5. Teaching on the BSc study

Degree of satisfaction with the teaching (Q 5.1)

The majority of answers (53) were positive; about 60% was ‘*satisfied*’ and about 17% were ‘*very satisfied*’.

About 17% characterized the teaching as ‘*fair*’, while less than 6% characterized it as being ‘*not satisfactory*’.

Motivation for being unhappy with the teaching (Q 5.2)

GEO1040 (*Introduction to programming with applications in geosciences*) receives 2 negative comments out of three answers.

Highest degree of output among finalized courses on the BSc study (Q 5.3)

Answers are different to this question, but the courses GEO1010 (*Physical Geography*) and GEO1020 (*Geological processes and materials*) often appear among the response submitted. In addition the course MAT1001 (*Mathematics I*) are often mentioned in this positive context. The importance of several other courses are also emphasized, but not to the same degree.

Apparently, there is some degree of general satisfaction among the students with two of the initial courses on the BSc study.

What might be improved among finalized courses on the BSc study (Q 5.4)

Again answers differ very much. However the course GEO1040 (*Introduction to programming with applications in geosciences*) is once again mentioned frequently (see also Q 5.2 above). The course GEO1010 (*Physical Geography*) is mentioned with a suggestion for a more focused line in the course.

6. Student life at the Department of Geoscience

Opinion about the social environment at the Department of Geosciences (Q 6.1)

The big majority of students responding to the questionnaire was happy with the social environment. About 46% characterized the environment as ‘good’ and about 42% as ‘satisfactory’.

A minor group was unhappy with the environment; about 8% characterized this as ‘not entirely satisfactory’ or ‘bad’ (about 4%).

Suggestions for change or improvement of the social environment (Q 6.2)

The answers to this question were covering quite a number of different suggestions. Some of the responses were suggesting *a higher number of activities* in the student associations, or that the physical facilities were not quite adequate (asking for *a larger room*). *Field excursions* were emphasized as an efficient means of bringing students together.

Active participation on social events arranged at the Department of Geoscience (Q 6.3)

In total 47 students responded to this part of the questionnaire. The big majority (about 81%) had participated, while about 19% was without personal knowledge.

7. The road ahead for the BSc-student

Future plans for the time after obtaining the BSc-degree (Q 7.1)

There was in total 63 responses to this part of the questionnaire. The big majority (about 86%) was planning to continue with a MSc-study. About 57% was planning to take their MSc-degree at the University of Oslo, while about 29% was planning to move to another university and take their MSc degree there.

Smaller groups were planning to go directly into another job (about 6%), while less than 2% (one person) declared that they were not going to take their BSc-degree. About 6% was still undecided as to their future plans.

8. Further comments and point of views

Comments or point of views (Q 8.1)

A range of different comments was received in this part of the questionnaire. A number of these addressed practical issues related to the study administration, hoping for improved service and more rapid responses to questions set forth by students.

Other comments were asking for more information on carrier possibilities following from the study at the Department of Geosciences, and asking for more detailed lecture schedules at the beginning of the term.

One comment was addressing the number of students in each class, pointing towards problems with efficient teaching of large groups of people.

OVERALL FINDINGS AND RECOMMENDATIONS BASED ON THE STUDENT QUESTIONARE

1: It appears that students taken up on the BSc study 2010 or later (36 answers) in general expressed a somewhat higher degree of satisfaction, compared to students taken up previously (14 answers). This is encouraging, but the answers given also show that there still is room for improvement. It might be noticed that the majority of answers to the questionnaire were submitted by students in Geology and Geophysics, and that other study directions were weaker represented.

2: The Internet represents the main source of information for students. It is important that this is realized by the department, and that great care is taken when preparing the general webpage for the Department of Geosciences, as well as the webpages for individual study courses.

3: The majority of students responding to the questionnaire had chosen the BSc study possibility with relatively low content of mathematics.

4: The quality of teaching (lectures, exercises and field excursions) is generally considered as good. Field excursions appear to be highly appreciated both from a scientific and from a social point of view. As field excursions often is reduced in their number at many universities for funding reasons, the Department of Geoscience should consider guarding existing excursions, as these might represent a valuable source for student recruitment in the years to come.

5: Several of the introductory courses are receiving positive comments (especially GEO1020). One course (GEO1040) is receiving less positive comments, and certain changes might therefore be considered as to structure, content and/or timing of this course.

6: The study workload was generally considered as being fair, and up to overall student expectations.

7: Several students expressed some degree of frustration in relation to access to the study administration. As new students (BSc) often have more questions than older students (MSc), this is not entirely surprising, but here might nevertheless be room for improvement.

8: The social environment at the Department of Geoscience is generally evaluated as being friendly and good by the students. This relates both to the teaching environment, as well as for the student association GÆA.

Concluding remarks: Although the present BSc study at the Department of Geoscience apparently performs relatively well, there is still room for future improvements. This relates to the individual courses as well as the study administration.

However, in this respect is important to remember that the recognition of necessary efforts to improve teaching and administration must begin by providing the staff with the time outside their other duties to plan, implement, and discuss the effects of possible future changes. Time will also be needed to develop new skills (where necessary), and to find out about the experiences of people who have made previous attempts to undertake similar changes.



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