

Education in Land Administration and Surveying in Bergen University College, Norway

Arve LEIKNES, Norway

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SUMMARY

An education programme in land consolidation was established in Bergen in 1957. It started as a 1 year course at Stend agricultural school, aiming to educate technical personnel for the land consolidation courts. In 1981 the course was expanded to 2 years. In the early 90's the education was moved to Bergen University College, and is now established in a challenging environment within Department of Civil Engineering. From 2006 the study is expanded to three years, and a bachelor programme in "Land administration and surveying" is now offered to our students. The introduction of the bachelor programme caused that the number of applicants was doubled. In 2006 there were 70 applicants, and 39 students were admitted for the study. The paper will present the study programme with emphasis on the field course in cadastral surveying.

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1. INTRODUCTION

Bergen University College have started a new education in Land administration and surveying. It is a three year bachelor program. Education in these subjects has been offered in Bergen for 50 years but the name and focus has, in most of these 50 years, been land consolidation. With new title of the study program and expansion to bachelor degree the study within the surveying fields at Bergen University College has achieved a substantial upgrade.



Land surveying in practice

2. EDUCATION IN NORWAY

Education in Norway in land administration and land surveying is given at some universities and some regional colleges. The big challenges have been recruitment of staff working in the universities and recruiting of students. In some of the educations we have as few as 5-10 students every year. And then it is obvious that this is very expensive when we compare to student groups of maybe 100 students.

It is a problem for the profession in Norway that we hardly get young people to take a Master in the geomatics subjects. And when few people take Master, few people study for PhD. And then it is difficult to get people to work in the Universities.

It will in this paper be given a presentation of where you find education in Geomatics, land surveying, land use planning and land management in Norway.

2.1 Norwegian University of science and technology (NTNU)

NTNU offer master programs in Geomatics, Land Management and planning. The program in Geomatics is a part of the civil engineering program.

2.2 Norwegian University of Life Sciences (UMB)

UMB offer a bachelor and master program in Geomatics. The program has few students.

UMB also offer master programs in Land administration, Land management and Land use planning. The recruitment of students to these programs has been good during the last years.

2.3 Gjøvik University College (HiG)

HiG offer a bachelor program in Geomatics. This program also has a problem with attracting students. HiG offers short follow up studies and are doing well in this business. They have also good research programs going on.

3. BERGEN UNIVERSITY COLLEGE

The original aim of the education in Bergen was to educate technical staff to the Land Consolidation Courts. It started in 1957 as a 1 year course at Stend agricultural school. In 1980 it became a 2 year education and in 1993 it became a part of Bergen University College.

Bergen University College is one of the largest regional colleges in Norway. We have about 6000 students and the number of staff is 600. The faculty of engineering has all traditional engineering subjects and the number of students is 1500. And it is increasing. Engineering education in Bergen has no difficulties in attracting students.

Therefore we have a great number of students, and we also have good economy conditions in our faculty. But we have difficulties attracting staff to our department.

Being a part of the faculty of engineering also gives our study program benefits because we can use the faculty broad expertise in all these subjects. As an example we offer follow up courses in industrial metrology. These subjects are normally found within mechanical engineering. Now we can offer our students to learn about metrology and many of the students will start working offshore in mechanical industry.



Bergen University college

3.1 Land Consolidation Court

As mention above, the original aim of the study in land surveying and land consolidation in Bergen was to educate technical staff to the Land Consolidation Courts. In Norway we have about 1000 land disputes brought to court every year. One reason why we have so many land disputes is that we did not undertake cadastral surveying when land was subdivided in rural areas prior to 1980. We have also complex land ownership in Norway, with much common land and land in state ownership.



Land dispute (from www.jordskifte.no)

The Land Consolidation Court has about 260 employees and many of our students have started working here.

4. STUDY PROGRAM

The program has four main subjects – land use planning, land management, land surveying and GIS. This is made up in smaller subjects built up in 10 credits (ECTS).

We are the only educational institution in Norway educating cadastral surveyors. Land management, land use planning, GIS and land surveying are fully integrated and the whole staff belongs to Department of civil engineering and land management.

4.1 First year

– Introduction to GIS	10 credits
– Public Law	10 credits
– Mathematics	10 credits
– Land surveying	10 credits
– Economics and Resource Management	10 credits
– Land Management I	10 credits

The aim of this year is to give the students an overview over all our topics. We also teach them enough land surveying that they can have work during the summer in land surveying companies or municipalities.

4.2 Second year

- Land Management II 10 credits
- Geographic Information systems I 10 credits
- Cadastral surveying 10 credits
- Public Law II 10 credits
- Basic Road- and Land use planning 10 credits
- Optional courses 10 credits

This year we have our cadastral practice. We have an agreement with a municipality nearby Bergen to undertake cadastral surveying on behalf of the municipality. Through the cadastral practice the students meet land owners and other parties involved in cadastral processes. This is real work and the students undertake the field work with big enthusiasm and the quality of the work is quite good.

After the second year the students have sufficient knowledge to work with cadastral surveying in the summer.



Students doing cadastral surveying

4.3 Third year

- Land Management III 10 credits
- Geographic Information systems II 10 credits
- Engineering surveys 10 credits
- Thesis 20 credits
- Optional courses 10 credits

The last year the students are learning academic work. They have to implement academic level in all the reports they are writing. And their last main thesis is a comprehensive study of an optional subject.

The students have available 20 credits to make their own profile. These credits can be used for more land surveying or more land management courses.

For two years now the Faculty has been offering two international optional courses. One course is in Land consolidation and land tenure in other countries. The students have been to Faroe Islands and Galicia (Spain) and Cypros to study these subjects.

The other course is in Land registration and Cadastral surveying. The students taking this course have been on Iceland. The students get 5 credits for each of these courses and benefit for the students are better understanding what challenges we have in Norway within these areas. The students also learn languages.

5. RECRUITMENT OF STUDENTS

The last year we have had an increasing number of students at Bergen University College. From 2006 we started the new bachelor program. One of the reasons that we have increased number of student might be that young people in Norway know what a land surveyor is, but they do not what land consolidation is. We also have the understanding that young people are not familiar with the word Geomatics. We have the opinion that the traditional terms as land management and land surveying are easier to understand.

Another reason why we attract a great number of students is that Bergen University College is located in the City of Bergen. Bergen is the second largest City in Norway and young people like to study where they can have all sort of entertainment, sports events etc. This Bergen can offer.

Table 1: Number of students admitted the last years:

	Applicants	Admitted
2002	22	22
2003	25	25
2004	32	32
2005	36	36
2006	70	39
2007	67	41

6. MASTER PROGRAM

The students who have finished their Bachelor program can take a master at UMB. The subjects are normally land management/administration, land use planning or Geomatics.

To become a judge in the Land Consolidation Court you must have a master in Land administration from UMB. This is according to the Land Consolidation Act. .

Bergen University College now have discussions with University of Bergen about cooperation in establishing a master study in Land administration. Some of the best experts in property law in Norway are working at the Faculty of Law at Bergen University.

The bachelor students from our college need to study land administration for two years to get a master degree. A master in law educated at the University of Bergen need to study one year, with topics in land consolidation, land surveying and GIS to become a judge in the Land Consolidation Court.

BIOGRAPHICAL NOTES

Arve Leiknes

Jordskiftekanidat 1986, Agricultural University of Norway

Norwegian Mapping Authority 1987-1994

Bergen University College 1994 →, Assistant professor and coordinator of the program in land surveying and land administration.

CONTACTS

Mr. Arve Leiknes

Bergen University College

Postbox 7030

5020 Bergen

NORWAY

Tel. +47 55587653

Fax +47 55587790

Email: arve.leiknes@hib.no

Web site: www.hib.no