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## **Equine education on bachelor level in Finland**

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### **Abstract**

Häme Polytechnic (HAMK) is a multidisciplinary university of applied sciences with more than 20 degree programmes and 7 500 students. It offers broad-based, high-quality education, research and development, and strong emphasis on international cooperation. Natural resources and the environment is one of the educational branches of HAMK. The degree programme in Agriculture and Rural Industries (in Mustiala) offers education on polytechnic level in countryside studies (B.Sc. Agric.). There are two possible curriculums of 240 ECTS: agricultural and equine option. The number of annual applicants to equine option is about 120 and 12 students are chosen by national entrance examination. There are basic courses common to all Häme Polytechnic degree programmes, basic courses compulsory for all Mustiala students and special studies which enable a wide choice of courses and projects. During the final, fourth year the students write a thesis on a subject related to their major subject. Active co-operation with several agricultural colleges and universities in Europe opens for the students opportunities for doing part of their studies abroad. Many of the students do their practical training in a foreign country. Equine option offers extensive information of horse management, e.g. nutrition, breeding, veterinary treatment and physiology, production environment, and economy and marketing. Besides equine studies, students choose one or two additional subjects from a wide variety of subjects. A survey was carried out to find out the employment situation of the equine option graduates, and also to investigate which factors and skills are important in working life. The proficiency given by the degree is the main income for nearly 80% of the graduated respondents, and over 60% of them are in full-time work. Graduates work in the equine or other agriculture related branch: as teachers on the secondary vocational level, advisors, entrepreneurs and in administrative duties.

### **Introduction**

Polytechnic is an institution of higher education which gives both practical skills and theoretical knowledge (Figure 1). Häme Polytechnic (HAMK) provides professional higher education and applied research for both young and adult students in the fields of culture, natural resources and environment, natural sciences, social sciences, business and administration, social services, health and sports, technology, communication and transport, tourism, and catering and domestic services. In addition, HAMK offers vocational teacher education. Altogether 23 degree programmes are located around Häme-province; HAMK has units in seven locations with 7 500 students and 800 employees, half of them are teaching staff. Most of the staff in teaching and development work has a higher academic degree and/or a background in research work while teachers in vocational subjects have practical work experience.

According to the HAMK “business idea”, the main goals are to arrange high quality education, to fulfil the needs of working life and internationalisation, and to assure good employment opportunities for graduates. Special focus is put on cross-disciplinary implementations in education. Internationality includes international education, research and development projects as well as mobility. HAMK has over 100 partners all over the world.

Natural resources and the environment includes a degree programme in Agriculture and Rural Industries in Mustiala, Forestry in Evo, and Horticulture and Landscape in Lepaa. Education for agriculture in Mustiala is traditional, because already in 1840 the first farming college in Finland was established there. During the 165 years Mustiala has offered education on different levels; even the highest academic education for agriculture was started in Mustiala until it was moved to Helsinki into the subordination of the University. In 1990’s Ministry of Education built the system for polytechnic level education (Figure 1.), and since 1994 there have been two curricula in Mustiala: for agricultural and equine studies.

Students are approved by a national entrance examination, which takes into account previous studies in upper secondary school or on secondary vocational level, work experience and an entrance exam, which involves two tests: mathematical and logical power of deduction, and communication and information skills. In addition, approvals for the equine option have an extra exam. The number of annual, principal applicants to equine option is about 120 and 12 students are chosen.

The degree for bachelor of science (B.Sc.) consists of 240 ECTS credits and is meant to be passed in four years. The curricula have changed during ten years; educational content has been modified on the basis of the feedback given by the cooperation partners in working life. Nowadays the degree studies are based on basic studies (55 ECTS), vocational studies (105 ECTS), free choice studies (15 ECTS), practical training periods (50 ECTS) and thesis (15 ECTS). Basic studies are divided into studies common to all Häme Polytechnic students and basic courses compulsory for all students under Natural resources and the environment -field. Vocational studies can be separated to obligatory studies (45 ECTS) and main (30 ECTS) and secondary subjects (30 ECTS).

An educational institute is, of course, interested in how well the education meets the demands of the working life, and how well the graduates are employed. The Ministry of Education measures the profitability of the colleges by several indicators; the employment of the graduates is one of them. The problem is that public statistics don’t separate different curricula. One possibility to observe employment opportunities was to carry out a questioning. The aims of the study were to determine how well the equine option graduates are employed and in which branches, and also to inquire which subjects and studies are prioritized at work.

## **Material and methods**

The survey was carried out as a mail enquiry. The questionnaire was sent to all graduates from the equine option until year 2004 and consisted of 34 questions. Also non-graduates received the enquiry, but because of the low number of the respondents, they were excluded from the study. The number of recipients was 82 and 81% (67) of them were graduates. Altogether 51 graduates answered, which gives the hit rate of 76%. The high answering rate probably indicates the importance of the topic and makes results reliable and valuable.

## Results

The majority of the respondents (88%) were women, which corresponds to the current sex distribution in the horse management branch. The average duration for studies was 4,3 years. For 78% of graduates, B.Sc. qualification was their main source of income, and 60% of the respondents had a full-time job. One fifth told they were entrepreneurs, whereas an average proportion of the entrepreneurs among graduates from agriculture and forestry curriculum is one third. The mean unemployment time was four months, and most of the jobless persons had been out of work only once.

Employment opportunities are generally good; 82 % of graduates got their first job already during student days or immediately after graduating. Only three (6%) respondents mentioned that finding a job took over six months. Personal relationships were the most significant way to find a job.

The equine branch, even though it is a growing sector, doesn't employ all the graduates; some are employed by another agricultural industry or a combination of the agricultural and equine branches. The most remarkable employers were private enterprises, like stud-farms and clinics, and organizations (Table 1.). The types of the duties varied a lot, and many responded they had various responsibilities (Figure 2.). Most (79%) of the graduates works in southern and western part of Finland, where most of the horses are distributed, too.

The equivalency of the education and the assignments at work was rather good according to respondents (Table 2.). However, 43% found it "quite difficult" to find a work comparable to education; 20% found it very difficult and 37% very or quite easy. Job-hunting is very individual, and everyone defines him/herself whether a job conforms with his/her degree or not.

In the inquiry, the graduates evaluated factors, which were important in terms of employment. Factors were graded by scale from 1 to 5 (1=meaningless, 5=very important). The range of the means of the factors were 3,44 - 4,40. For instance, interaction skills and working experience were much more important than theoretical know-how. Different subjects were also put in to the order of superiority: business and marketing were experienced to be the most necessary (mean 4,40), equine studies was the on the second place with a mean of 4,17, and languages got the third place (mean 3,75). Agricultural technology, tourism and forestry were graded the least significant for work duties. The order of importance of the subjects correlates with the choices of the additional subjects among the students in equine option. Business and marketing is the most popular additional subject nowadays.

## Discussion

Employment opportunities are promising according to our survey. Generally the bachelor level graduates are employed well: according to Central Statistical Office of Finland (2005) only 7% is unemployed after one year of the graduation. There hasn't been a high turnover of the jobs, which is mainly explained by the short career; the first degree student of B.Sc. graduated in 1998. A sort of career development has happened, because the present job was more often (62%) permanent compared to the first job, which was mainly temporary (56%). The competence has grown when comparing the first and the present job; more often respondents were promoted to a manager, a foreman or an expert in their current job. The average salary of the graduate B.Sc. in agriculture is 1 700 € per month (Kuismin 2004), while 41% of B.Sc. from equine option earn 1501-2000 € per month. Of the respondents, 15% earn more than 2000 € per month and 44% earn 1500 €/month or less.

Education on bachelor level is challenging; the whole system is still establishing its status between the secondary vocational school and the university. Combining the practise and the science requires diversified skills, for both the teachers and the students. The output level of the students can vary, and the idea is no longer to teach the basics. Entrepreneurship skills are perceived important in every branch of education and should be taken into account in everyday schooling. Contacts to working life should increase and develop so that exercises would benefit the local entrepreneurs and other cooperation partners. Anyhow, the degree of B.Sc. in agriculture is a multipurpose degree that offers possibility to do various tasks and evolve the knowledge.

Results of the survey proved that graduates from equine option do have good employment opportunities and their duties are, as expected, very diversified. Education must recognize the spirit of the age and develop continuously. A particular stability is needed, but the contents of curriculum have to respond to the graduates' needs – they represent the working life of the future and know best what is needed most at work.

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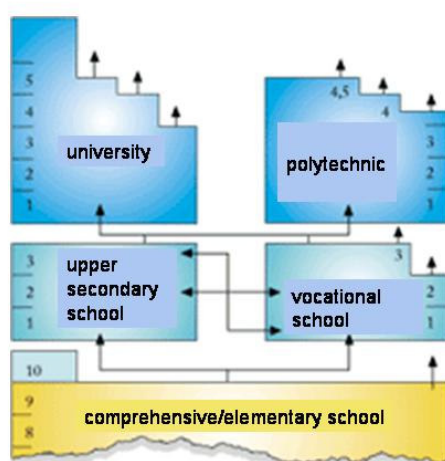


Figure 1. A stepped school system in Finland (Ammattikorkeakoulujen rehtorineuvosto ARENE ry).

Table 1. The different branches and the employers, which employ graduates from the equine option.

Branch	Observations	Employer	Observations
Equine	16 (39 %)	Private enterprise	15 (37 %)
Agriculture	9 (22 %)	Organization etc.	10 (24 %)
Other	7 (17%)	Commune	7 (17 %)
Combinations of above-mentioned	9 (22 %)	State	5 (12 %)
		Other	4 (10 %)
Altogether	41		41

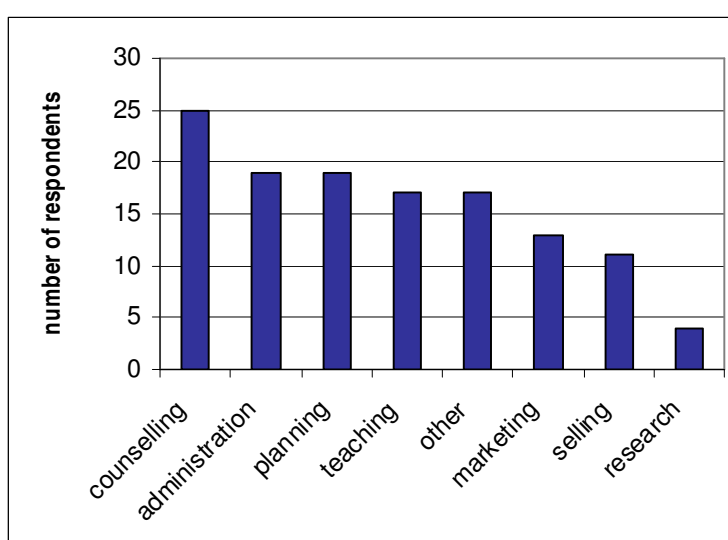


Figure 2. Variety of duties.

Table 2. The correspondence between the education and the requirements of the working life.

Equivalency of education and working life	Observations	
Very good	5	10 %
Moderate	36	75 %
Unsatisfactory	7	15 %
Poor	0	0 %
Altogether	48	100 %