Building the Educational Competences of the Future
Designing a New Curriculum in Surveying
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The Surveyors Profile

A Multidisciplinary Profile

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The Aalborg Model

- Problem Based Learning
  - Based on real-life problems in surveying
- Project Organised Education
  - Project work supported by lecture courses
- Group Work
  - groups of four to six students
  - supervised by the teachers
- Interdisciplinary Studies
  - Integration of theory and practice
  - Focus on Learning to Learn

Flexibility and Adaptability

- The adaptability of each term
- The adaptability of the curriculum
- The adaptability of the graduates
New Curriculum – Why?

A new law of university governance
- A council with majority external members from the trade and industries
- The council employs the rector
- The rector employs the deans, who will employ the head of departments
- Faculty and department boards will be replaced by academic councils
- The study boards will still be responsible of the educational programmes

A new structure for the University programmes
- The Bologna agreement 3+2 principle
- 3-year Bachelor programme; 2-year Masters programme; 3-year Ph.D.
- Master programmes are open for various bachelor programmes

A new law for the university programmes
- Only one law regulating all educational programmes
- All programmes must be revised and adjusted to the new structure

Universities in transition

New Curriculum - How?

A new 3+2 structure
Consequences for the surveying education

- Will bachelors possess the necessary competences?
  - A broad education within both technical and social science
  - Bachelor: three years of know-how studies; Masters: two years of know-why
  - Existing 2½ year technical college program in surveying and mapping
  - Is the labor market prepared for bachelors?

- Focus on the five-year masters programme
  - To obtain a license for cadastral surveying requires a five year programme plus three years of professional practice.
  - Without the demand for a full scale five year programme, it may easily be divided a technical and a social science part

- The title of the graduates?
  - The title is supposed to follow the masters specialisation
  - However, the title Chartered surveyor should be exclusive for the graduates having followed the full five program in surveying.

International trends

The Educational Profile

Consequences for the surveying education

- Extending Professional Competence of Surveyors in Europe

- Germany, France (8 years)
- United Kingdom (5 years)
- Italy, Spain, Greece (3 years)
- Other countries (varies)

- A new 3+2 structure
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Competences of the graduates

A survey of the last ten years of graduates
Answering 75% ~ 300 graduates (1/3 female)

- Overall assessment of the programme: 83% good or very good, 2% bad
- Professional qualifications: Fine match between the qualifications obtained, and the competences asked for in practice
- General qualifications: Interdisciplinary skills, problem solving, communication, and management – also a fine match.

New Curriculum – this way:

... A new curriculum

- Adapted to the new 3+2 structure
- Adapted to the international trends
- Professional areas adapted based on the survey of competences of the graduates
- The programme is secured for a 10 ten year period ahead
- The “Aalborg model” is maintained including the problem-based project work
- Continuing development of implementing IT in the educational process and in the interaction between education, research and professional practice.

Promotion

The competences of the future...
... The competences of the future

- The surveyors’ educational council
  - Representatives of the employers within the different professional areas, professors and students, in total 18 members
  - Discussion on the competences of the future in a visionary perspective

- The only surveying programme in DK
  - Special demands of development and innovation
  - On the forefront – and preferably a little ahead

- The new curriculum is another step forward
  - for building the competences of the future

Thanks for your attention