



Intensive Bachelor`s Courses

APPLICATION OF MODERN TECHNOLOGIES IN RECONSTRUCTION OF GEODETIC HEIGHT SYSTEM

April 18 – 21, 2017

Latvia University of Agriculture

Jelgava, Latvia

4 ECTS

- Development of national height systems in Baltic countries and Europe
- Assessment of national basic levelling network reconstruction in Baltic countries
- Different methods of levelling and technologies on field



Course description:

The course is addressed to students from geomatics, geodesy, land management, landscape architecture and planning, forestry, environmental science, geography.

The aim of the course is to bring together students from different specialities and discuss the understanding of precise geometric leveling performance order and methodology for the best precision of observations, also trigonometric, GNSS and hydrostatic leveling use and precisions; **levelling field works**; modelling of current height system replacement and specification of the geoid model.

One part of studies will consist of distance learning – students will be provided with literature and the newest scientific articles on certain topics. Results of the home tasks will be presented and discussed during the workshop. Students will have team work and tasks to accomplish comparison of different countries experience before they will be present at lectures. Meeting for one week will consist of team work, theoretical lessons, practical seminars, field trips and measurements. Practical seminars have a goal to finalize team work of different students groups, while theoretical lessons are intended to clarify all unclear issues related to different topics in particular Baltic country. A field trip to Riga, State Land Service and Latvian Geospatial Information Agency will be a good opportunity for students to see how precise leveling is realized, how height system replacement impacts surveying and geodetic data. There will be realized field measurement by different methods of leveling and evaluation of the results obtained.

Scientific content:

Parameter analysis of height system replacement procedure. The modelling of “perfect” height system replacement procedure will be done as a final work for the student groups. SWOT (strengths, weaknesses, opportunities, and threats) analysis will be accomplished for each Baltic country for height system replacement.

Learning outcomes:

- specialized knowledge and critical awareness on government and private institutions making decisions in organization of basic network levelling measurements, use of different levelling methods based on precision and economic conditions, impact of height system replacement in Baltic countries overall;
- skills to accommodate obtained knowledge in order to analyze and understand basic criteria of different solutions of height system replacement procedure, apply SWOT analysis;
- competences without assistance to use obtained knowledge and skills in practical work for finding better and most efficient solutions.

Team: International team of teachers from 3 Baltic countries

Course leader: Assistant Professor, Dr.sc.ing. Armands Celms, Faculty of Environment and Civil Engineering, Latvia University of Agriculture

Distance learning part: April 3 – April 13, 2017

Meeting in person: April 18-22, 2017

Information for registration and scholarship: Consult your local BOVA or NOVA coordinator.

Use <http://www.bova-university.org/>

If you have any questions, please contact BOVA coordinator at LLU: aigars.ancans@llu.lv

Don't miss registration deadline – April 3, 2017