## "EUROPEAN EDUCATION IN GEODETIC ENGINEERING, CARTOGRAPHY AND SURVEYING"

## THEMATIC NETWORK (EEGECS)

## Working Group 1 "Undergraduate Education"

This survey is commissioned by the "European Education in Geodetic Engineering, Cartography and Surveying" Thematic Network (EEGECS), funded by the ERASMUS Program. This network involves higher education institutions from 18 countries eligible for Socrates financial support, as well as professional associations and research centres. The reasoning of the project is facilitating transnational access to educational resources in Europe, improving recognition of qualifications and degrees in the discipline, and fostering academic mobility and employability: enhancing students to work in Europe, not just in the region where their diploma was earned.

In line with the Bologna and the Prague Declarations of the Ministers of Education, EEGECS would like to establish a European Higher Education Area in Geodetic Engineering, Cartography and Surveying, by means of: adoption of a system based on two main cycles, promoting the European Credit Transfer System and Diploma Supplement, definition of a core curriculum for each of the specialities identified, promoting the mobility of undergraduate students, researchers, teachers and administrative staff, enhancing the dialogue and co-operation between Institutions of different countries, creating tools for life-long learning in the discipline and others.

This questionnaire was prepared by the members of the Working Group 1 (Undergraduate Education), organized to accomplish the next objectives:

1-. Develop the state-of-the-art of the discipline in Europe and other countries: comparative analysis of the study plans in each country (within Europe, and other countries, to enhance dialogue between higher education institutions, exchange ideas and information and obtaining a general panorama).

2-. Adoption of the European Credit Transfer System, and implementation of the Diploma Supplement, to promote transparency and facilitate mobility and recognition of study periods abroad.

3-. Elaborate a core curriculum of the discipline, with a European dimension, in order to organise diversity, rather than eliminate it. Move towards the adoption of a 2-tier degree system.

The objective of this questionnaire is to seek information on which to develop the state of the art of professional competence for the different areas of geodetic engineering, surveying and cartography in Europe.

Please, fill and send this questionnaire before April 10<sup>th</sup> to the next email address:

jesus@ludens.elte.hu

Thank you very much for your collaboration,

Working Group 1 "Undergraduate Education", Polytechnic University of Valencia

- 1. Country: Germany
- 2. Name of the Higher Education Institution: Technische Fachhochschule Berlin
- 3. Faculty:
- 4. Department: Bauingenieur- und Geoinformationswesen
- 5. Name of the programme: Vermessungsingenieur
- 6. Name of the degree: Diplomingenieur
- 7. List the specialisations within this programme:
- 8. If the institution has not established a 2-tier degree (3 years Bachelor and 2 years Master) system, please answer the next question:
  Is there any schedule to establish 2-tier degree system in the near future?
  Yes X\_ No\_
- 9. Duration of the programme (please, underline the correct one):
   8 semesters, trimesters or others.

If you selected "others", please specify which:

- 10. Is there any requirement to enter the study programme? Yes X No
  If yes, please indicate shortly these requirements: Fachhochschulreife
  13 weeks external practical training
- 11. Has your institution adopted the Diploma Supplement?
   Yes <u>No</u>
   If yes, please attach a sample document to this questionnaire.
- 12. Has your institution adopted the European Credit Transfer System (ECTS)?
  Yes \_\_\_\_\_ No\_\_X\_\_\_
  If no, is there any schedule to adopt the ECTS in the next future?
  Yes \_\_X\_\_\_ No\_\_\_\_
- 13. If the curriculum is available on the Web, please specify the address of the site. If the information is available in other format (for example .doc), please attach it to this survey. -> tfh.webleben.com/vermessung/studienordnung\_v.pdf

-> tfh.webleben.com/vermessung/Prüfungsordnung v.pdf

14. Please, answer the next questions if the required information is not <u>included in the</u> <u>homepage</u> or document asked in the previous question:

- Is the programme offering courses (or subjects) taught in other language(s)? Yes \_\_\_\_ No\_\_\_\_

If yes, please indicate which courses and in which language(s):

- Are compulsory practical trainings (provided by external institutions) included in the programme?

Yes \_\_\_\_ No\_\_\_

If yes, specify the duration and at which stage (when):

- Number of credits per study programme:
- 15. Could you indicate the equivalence between credits and hours of courses in your institution?

 $\underline{\qquad 1 \qquad credit(s) = \_1 \qquad hour(s) of lecture} \\ \underline{\qquad 1 \qquad credit(s) = \_1 \qquad hour(s) of practical class}$ 

- 16. Please, complete the table(s) annexed to this survey.
- 17. Other remarks related to the study programme:

18. Contact person's data

- a. Name: Prof. Dr.-Ing. M. Kähler
- b. Position: Leiter der Ausbildungskommission
- c. Email kaehler@tfh-berlin.de

DEGREE: Diplom-Vermessungsingenieur											
GROUPS OF SUBJECTS	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	5 <sup>th</sup>	6 <sup>th</sup>	7 <sup>th</sup>	8 <sup>th</sup>	9 <sup>th</sup>	10 <sup>th</sup>	
	SEM.										
Basic Sciences (Maths, Physics, etc)	10	10	8								
Computer Sciences & Programming		4	2	4		(4)					
Statistics and Adjusment Theory	4	4	10								
Geography					<b>H</b>			Ι			
Other Geosciences					Exte			Diplo			
Surveying and Mining	6	6	4	8	External	4 + (4)	4 + (4)	olo			
Land Management and Planning				4			4 + (4)	m			
Civil Engineering and Construction				2	rac	2	4	a-I			
Instruments and Technology	6	4			Practical			Dis			
Geodesy (Physical, Space)					-	2	2	se			
Positioning and Navigation					Traini	(4)		rta			
Photogrammetry and Remote Sensing				2	ini	4	4 + (4)	ation			
Cartography (Theoretical and Thematic)			2	4	ng			n			
Mathematical Cartography (Map projections)						2	2				
GIS and Digital Cartography						4	4				
Cadastre and Law				3		4 + (4)					
Business Administration/Economics	2	2	4								
Management					6		2 + (4)				
Others (English)	2										

*Other Geosciences*: Geology, Geomorphology, Hydrography, etc. *Surveying*: Engineering, Topographic *Business Administration/Economics*: Marketing, Finance, Cost Control. *Management*: Business, Project Management.

Indicate the number of hours/week for each group of subjects taught in a semester. Please, specify the subjects included in the "Others" category:

(4) ... Elective Courses

						/
SPECIALISATION:						
GROUPS OF SUBJECTS	1 <sup>st</sup> SEM.	2 <sup>nd</sup> SEM.	3 <sup>rd</sup> SEM.	4 <sup>th</sup> SEM.	5 <sup>th</sup> SEM.	6 <sup>th</sup> SEM.
Basic Sciences (Maths, Physics, etc)	SEIVI.	SEIVI.	SEIVI.	SEIVI.	JEIVI.	SEIVI.
Computer Sciences & Programming						
Statistics and Adjusment Theory						
Geography						
Other Geosciences						
Surveying and Mining						
Land Management and Planning						
Civil Engineering and Construction						
Instruments and Technology						
Geodesy (Physical, Space)						
Positioning and Navigation						
Photogrammetry and Remote Sensing						
Cartography (Theoretical and Thematic)						
Mathematical Cartography (Map projections)						
GIS and Digital Cartography						
Cadastre and Law						
Business Administration/Economics						
Management						
Others						

*Other Geosciences:* Geology, Geomorphology, Hydrography, etc. *Surveying*: Engineering, Topographic *Business Administration/Economics*: Marketing, Finance, Cost Control. *Management*: Business, Project Management.

Indicate the number of hours/week for each group of subjects taught in a semester. Please, specify the subjects included in the "Others" category: