47. Slovenian Land Surveying Day

Competences and business matters of professional surveyors and cartographers in Croatia
Competences and business matters of professional surveyors and cartographers in Croatia

1. ASSESSING THE ISSUES OF FORMAL AND REAL POSSIBILITIES FOR SLOVENIAN SURVEYORS TO PREFORM SURVEYING/CADAstral, CARTOGRAPHIC AND OTHER SERVICES ON THE TERRITORY OF CROATIA.

2. THE LEGAL CONDITIONS AND PROFESSIONAL CONDITIONS TO BE FULFILLED IN THE VIEW OF COMMON EUROPEAN MARKET

3. THE REAL SITUATION IN SURVEYING AND ACCOMPANYING SECTORS IN REPUBLIC OF CROATIA

4. NEW LEGISLATION IN GEODETIC FIELD IN CROATIA
Study programmes

- **Bachelor study** programme lasts three years,
- **Master study** programme lasts two years,
- **Postgraduate doctoral study** programme lasts three years, and
- **Specialist** postgraduate programme lasts one year.
Competences of professional surveyors

What competences and what kind of different work can surveyor conduct after:

• **Bachelor study programme of Geodesy and Geoinformatics**

• After completing the Bachelor study programme, students earn **180 ECTS points**, and acquire the vocational degree of Bachelor (baccalaureus) of Engineering in Geodesy and Geoinformatics (**univ. bacc. ing. geod. et geoinf.**).
Bachelor study programme of Geodesy and Geoinformatics

- The programme aims to educate the candidates in order to be able to participate in the procedures of registering land and interests on it, to produce and maintain topographic, cartographic and land geoinformation systems, to measure the quantities necessary in defining the size, position, features, outlines and changes of any part of the Earth and land, and to solve practical tasks in geodetic surveying.

- ....a good knowledge of mathematics, physics and information science. Field work is an integral part of geodetic jobs, hence. this study programme is an excellent choice for all those who wish to perform their job also outside of their offices, in fresh air, always on the go, but with great responsibility.

Master study programme of Geodesy and Geoinformatics

• After completing the Master study programme, students earn **120 ECTS points** and acquire the vocational degree of Master of Engineering in Geodesy and Geoinformatics (mag. ing. geod. et geoinf.). **Master study programme of Geodesy and Geoinformatics**

  • Master’s degree admission
  • Entrance exam
  • Enrolment to courses in higher semester/year
  • Diploma thesis and final exam
  • Study programme
  • Syllabus
  • Costs of studying
  • Important regulations
  • The most successful students
  • Academic advisors
  • Miscellaneous

Master study programme of Geodesy and Geoinformatics

The programme aims to educate the candidates in order to be able to

• participate in the procedures of registering land and interests on it,

• to produce and maintain topographic, cartographic and land geoinformation systems,

• to measure the quantities necessary in defining the size, position, features, outlines and changes of any part of the Earth and land,

• to solve practical tasks in geodetic surveying.
The study programme is performed in two major fields, geodesy and geoinformatics, with various obligatory subjects for each major field in the first three semesters. A part of optional subjects in the first two semesters is identical for both major fields, and all students are allowed to continue further education in the field of mathematics, foreign languages and presentation skills. In the third semester, optional projects are identical for both major fields, and students make professional seminar works under teacher guidance within the scope of two optional projects. In this way, students acquire specific knowledge and skills in the field of geodesy and geoinformatics. In the fourth semester, students work on their diploma theses applying the acquired knowledge and skills and performing research and practical activities. The results are illustrated in the oral presentation of diploma theses. Successfully defended diploma thesis is the precondition for completing the studies. By selecting the major field and the topic of diploma thesis, students can profile themselves with special emphasis on applying geodetic and geoinformation specialist knowledge and skills.

On successful completion of all exams, defended diploma thesis and on completion of other obligations as prescribed in the programme, Masters in Engineering of Geodesy and Geoinformatics will acquire the following competences:

- Knowledge and understanding:
  - Demonstrate the knowledge related to services based on spatial information for various groups of users, in order to support in spatial planning, sustainable development and preservation of environment.
  - Know national and international regulations and standards, key bodies and organisations that are responsible for the development of geodesy and geoinformatics.

- Applying knowledge and understanding:
  - Develop solutions for practical geodetic and geoinformation problems and tasks.
  - Design, analyse and establish geodetic networks needed in surveying and stakeout of objects providing thus the required quality and accuracy of the works performed in the environment.
  - Develop and apply the methods for monitoring the positions of natural and man-made objects in space and time.
  - Create models, databases and geoinformation systems for the purpose of describing the objects and phenomena in space, their attributes and topological relationships.

- Design topographic, cartographic and land geoinformation systems, interpret, integrate, analyse and visualise spatial data.

- Participate in the creation and maintenance of spatial data infrastructures by establishing and applying the geoinformation systems in accordance with norms and standards, interdisciplinary relations and intellectual ownership.

- Solve the tasks of object coordinates transformation among coordinate systems related to the Earth’s surface, Earth ellipsoid, geoid and map projections.
University postgraduate specialist study of geodesy and geoinformatics

- Decision on invitation to tender for interest in enrollment
- Call for expressions of interest for enrollment
- An application for a statement of interest to enroll in the study
- Execution plan

- 1 year (2 semesters) and not longer than 4 years
- 60 ECTS
- University specialist of Geodesy and Geoinformatics
- Ordinance on Postgraduate Specialist Studies at the Faculty of Geodesy of the University of Zagreb:

http://www.geof.unizg.hr/pluginfile.php/1780/mod_book/chapter/36/Pravilnik%20o%20poslijediplomskom%20specijalisti%C4%8Dkom%20studiju.pdf
Postgraduate Doctoral Study

• Research topics – Research funded by SuZG


• INTERNATIONAL DOCTORAL SEMINAR ON GEODESY GEOINFORMATICS AND GEOSPACE

Competences and business matters of professional surveyors and cartographers in Croatia

1. Assessing the issues of formal and real possibilities for Slovenian surveyors to perform surveying/cadastral, cartographic and other services on the territory of Croatia.

2. The legal conditions and professional conditions to be fulfilled in the view of common European market

3. The real situation in surveying and accompanying sectors in Republic of Croatia

4. New legislation in geodetic field in Croatia
Law on Geodetic Activity
NN 25/18 effective from 22.03.2018.

For the purposes of this Act and the regulations regulating state surveying and real estate cadastre, are included **professional geodesic jobs** for the purposes of state surveying, **professional geodetic jobs** for the purpose of real estate cadastre, **professional geodetic jobs** for the purposes of land cadastre maintenance and real estate cadastre, **expert geodesic jobs** for **infrastructure cadastre** and **expert geodesic jobs** for building cadastre needs.

https://www.zakon.hr/z/225/Zakon-o-obavljanju-geodetske-djelatnosti
Law on Geodetic Activity
NN 25/18 effective since 22.03.2018.

What is „geodetic job” for different jobs is under Article 5 explained.


After new law on Geodetic Activity, old one cease to be valid (Official Gazette 152/08, 61/11 and 56/13)
All other laws and Regulations, Decisions And Ordinances


All together 46 different regulations
In what way?

Apply for State Survey and Real Estate Cadastre jobs

Article 5 of the Law on geodetic activity—must have the consent of the SGA (State Geodetic Administration)

Applicant should receive confirmation from HKOIG that in last 3 years individual expertly trained and collected 60 points.
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Recognition of foreign qualifications

Law on regulated professions and recognition of foreign qualifications (NN 82/15)

Rulebook on Recognition of Foreign Qualifications for Regulated Professions in the Field of Geodetic Activity (NN 81/14)

• Application for recognition of professional qualifications (PISK-1 Form)
• Application for recognition of professional qualifications (PISK-2 Form)
• Application for pursuing the profession on temporary and occasional basis (Form PISK-3)

• https://translate.google.hr/translate?hl=&sl=hr&tl=en&u=http%3A%2F%2Fww w.hkoig.hr%2Fpriznavanje-inozemnih-strucnih-kvalifikacija%2F
Geodetic profession

- Law on regulated professions and recognition of foreign professional qualifications (Zakon o reguliranim profesijama i priznavanju inozemnih stručnih kvalifikacija)

GENERAL PROVISIONS

Article 1.

Paragraph (3) This Act lays down the conditions for the partial access to a regulated profession in the Republic of Croatia and the recognition of a traineeship performed outside its home Member State or the Contracting State of the European Economic Area Agreement and the Swiss Confederation.

Law on Recognition of Foreign Educational Qualifications NN 158/03, 198/03, 138/06, 45/11

Law on regulated professions and recognition of foreign professional qualifications (NN 82/15)


• by the end of April 2019, Croatian chamber of chartered geodetic engineers([http://www.hkoig.hr/](http://www.hkoig.hr/)) will bring new regulations for recognition of professional qualifications.
Temporary and occasionall surveying work

• It is necessary for an alien (or stranger) to enter the records of issued permits for temporarily and occasionally performing geodetic activities.

• Statute of the Croatian chamber of chartered geodetic engineers

Article 32 "Enrollment Board in accordance with applicable regulations:
Paragraph 4.: decides on the entry and the deletion:
- in the register of foreign physical persons who occasionally or temporarily carry out professional geodetic work”

Common European market

- Business of companies from EU in Croatia (geodetic profession)
- Common EU market under EU and Croatian laws and regulations
- Companies from EU can (with no limit) apply to Croatian tenders
Real situation with accompanying...

- In last few months activities within Civil engineering and Architecture are rising, so also Geodetic profession has more jobs.
- building act
- the law on spatial planning
- the law on mining
- law on rails

Geodetic elaborates for some purposes are made by authorized surveyors

Many of them does not need the approval of the SGA, because are not in SGA database
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New legislation in geodetic field in Croatia

• Plan is that in April of 2019, will be published by HKOIG, a new legislation (old one changed) by CROATIAN CHAMBER OF CHARTERED GEODETIC ENGINEERS.

The new legislation should be fully compatible with new law (2018) on geodetic activity.
Thank you for your attention!
Questions?