

11 – 16 April 2010

Education in Geodesy and Geoinformatics at the University of Zagreb and the Bologna Process

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Universities in Croatia



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University of Zagreb



- The oldest (1669) and biggest university in Croatia
- Consists of 29 faculties, 3 art academies and the Centre for Croatian Studies
- 50.000 full-time students
- Bachelor, Masters and Doctoral degrees
- Arts, Biomedicine, Biotechnology, Engineering, Humanities and Natural and Social Sciences
- Research-oriented university



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University of Zagreb, Faculty of Geodesy



Long tradition in higher education in geodesy in Croatia

- 1775 – *Exercitationes Gaeodeticae*
- 1811 – First diplomas and first chartered surveyors in Croatia
- 1919 – Technical High School
- 1926 – Faculty of Technique
- 1956 – Faculty of Architecture, Geodesy and Civil Eng.
- 1962 – Faculty of Geodesy, the autonomous institution
- 2008 – First Univ. Bacc. Eng. Geod. and Geoinf.



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University of Zagreb, Faculty of Geodesy



Internal organization:

**Institute for Applied Geodesy
Institute for Cartography and Photogrammetry
Institute for Geomatics
Hvar Observatory**



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Institute for Cartography and Photogrammetry

**Chair for Cartography
Chair for Geoinformation
Chair for Photogrammetry and Remote Sensing**

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The Bologna started 2005/06

Scheme: 3 + 2 + 3

Undergraduate 3 years	=> Bachelor, BE
Graduate 2 years	=> Master, ME
Postgraduate 3 years	=> Doctor, PhD



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Bachelor

3 years
3x60 = 180 ECTS
Univ. Bacc. Eng. Geod. Geoinf.

Master

2 years
2x60 = 120 ECTS
M. Eng. Geod. Geoinf.



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Bachelor study

2005/06

224 enrolled students – exceptional year

2006/07

147 new students (263 applicants)

2007/08

123 new students

2008/09

115 new students (282 applicants)

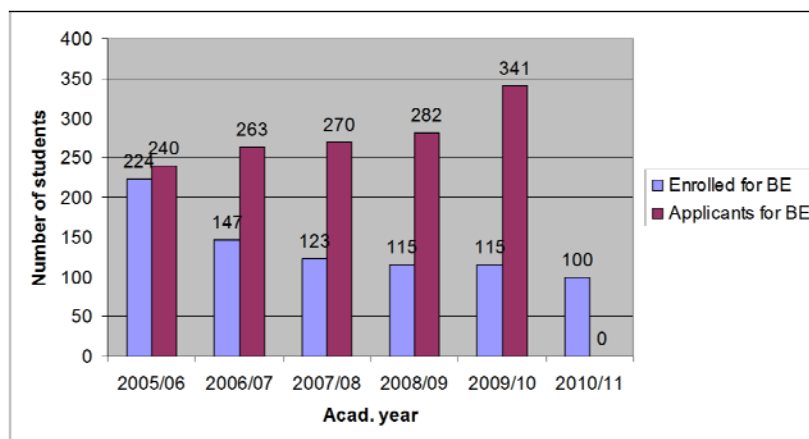
2009/10

115 new students (341 applicants)



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Bachelor study – applicants / enrolled



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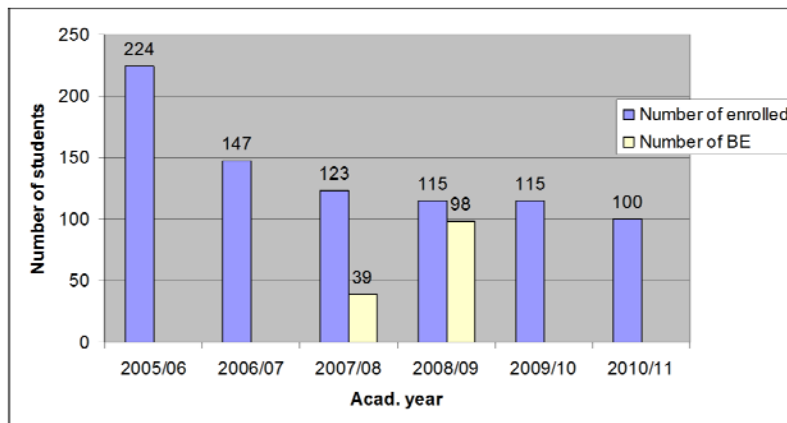
2004/05 and **years before**
 9 semester study
 115 enrolled a year, 40 graduated a year

Acad. year	Number of enrolled for BE	Number of graduated BE
2005/06	224	
2006/07	147	
2007/08	123	39
2008/09	115	98
2009/10	115	3 + ...
Planned 2010/11	100	



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Bachelor study – enrolled / graduated



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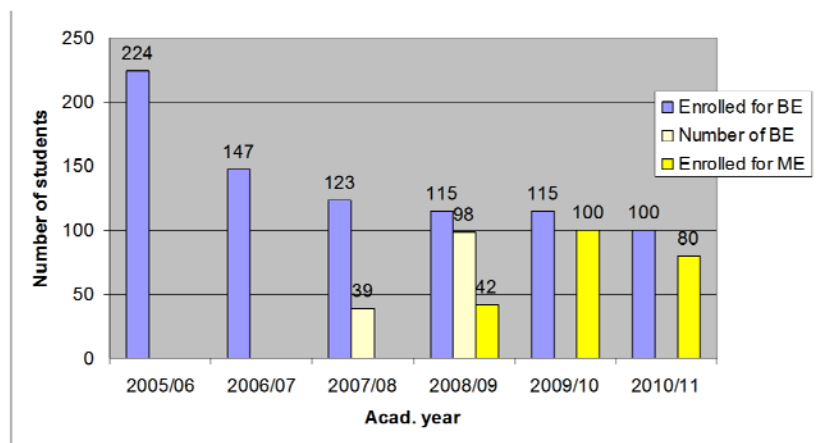
Acad. year	Number of enrolled for BE	Number of grad. BE	Number of enrolled for ME	Number of grad. ME
2005/06	224			
2006/07	147			
2007/08	123	39		
2008/09	115	98	42	
2009/10	115	...	100	...
Planned 2010/11	100		80	

“The first generation of students are going to finish the Master study this year, and most of them are going to find a job immediately, while some of them will continue with postgraduate studies.”



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Bachelor / Master



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Survey of Students Completed the Bachelor Study in 2007/08

Point out deficiencies and difficulties in education and should help in improving its quality

Following recommendations were made:

- **Organization of external student practice and collaboration with professionals working in practice**
- **Participation in field education (e.g. summer schools)**
- **Inclusion of students in scientific-research projects**
- **International collaboration**
- **Working in an international environment**
- **Participation in activities which develop a sense of belonging to the faculty**
- **Balance of knowledge evaluation criteria in various courses**



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Quality Assurance at the Faculty of Geodesy, Univ. of Zagreb

Regulations about :

- **Studying**
- **Awarding Students**
- **Final Exam of the Bachelor Study**

Committee for Quality Control was formed

**"Workshop on Educational Process Quality Assurance" -
TEMPUS CARDS project "Geographic Information Science and
Technology in Croatian Higher Education"**



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Conclusion

The goal is to make studying more successful.

Faculty of Geodesy, Univ. of Zagreb needs to create and implement a strategy for constant improvement of the educational process.

In the same time we should be aware that the number of needed BE and ME in geodesy and geoinformatics is not endless, and to make our plans accordingly.



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Thank you for your attention!

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