

National Peculiarities of Education of Master's Program "Cadastre and Land Management" in Russia

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Key words: Cadastre and Land management, Master's program, curricular

SUMMARY

Russian universities have moved to a two-level Bologna system of education finally in 2011. High schools have changed old curricula and developed new Bachelor's and Master's curricula. At the moment we have a transition period. Particular attention is paid to Master's level because it is new in Russia. According to the Bologna agreement this Master's level develops research skills and gives a basis for graduate studies on doctoral level.

The report reviewed profiles of Master's programme "Cadastre and Land management":

- Surveying and Land management;
- LIS (Land Information System);
- Real estate management and development
- Cadastre and Land Registration

According with the standards in RF the educational process should be provided with the following educational technologies:

- lectures (not more than 20% of all sessions);
- Practical and laboratory classes;
- Interactive sessions (discussions), case study;
- Research in the laboratories of the University (parallel to the classroom);
- Practical training in the organizations (both in parallel with studies and in the summer time);
- Teaching practices.

The report represents the problems faced by the Faculty of Economics and Land Management to establish new laboratory, technical and informational support of the teaching process, transition to blended learning as well as the problem of providing quality assurance control of teaching.

SUMMARY (optional summary in one other language in addition to English, e.g. your own language)

С 2011 года университеты РФ перешли на двухуровневую систему подготовки кадров. В вузах подготовлены учебные планы подготовки бакалавров и магистров.

Особое внимание уделяется подготовке магистров. Согласно Болонскому соглашению этот уровень соответствует подготовке исследователя и предшествует учебе в аспирантуре. Таким образом, учеба в магистратуре должна осуществлять подготовку выпускника к успешной защите диссертации.

Поэтому учебные планы предусматривают следующие технологии обучения.

- Лекции (не более 20% всех занятий);
- Практические и лабораторные занятия;

- Интерактивные занятия (в виде дискуссий о поставленных проблемах);
- Исследовательская работа в лабораториях университета (выполняется параллельно с аудиторными занятиями);
- Производственная практика в организациях, соответствующих программе магистратуры (Выполняется как параллельно с занятиями, так и в летний период. На это специально отведено время);
- Педагогическая практика.

В докладе рассмотрены данные этапы по направлению «Землеустройство и кадастры» по программам:

- Геодезическое обеспечение кадастровых и землеустроительных работ;
- Земельно-информационные системы;
- Управление недвижимостью и развитием территорий;
- Кадастровый учет и регистрация прав.

Рассмотрены проблемы, стоящие перед факультетом по созданию лабораторий, технического и информационного обеспечения процесса обучения, а также проблемы обеспечения контроля качества подготовки магистров.

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Since 2011 Russian universities have finally switched over to a two-level bologna system of education. High schools has changed old curricula and developed new Bachelor's and Master's curricular.

Particular attention is paid to Master's level because it is new in Russia. According to the Bologna agreement this Master's level develops research skills and give a basis for graduate studies on doctoral level.

At the moment we have a transition period. We have now different levels: Bachelor Level (4 years); Specialist level (5 years), Masters Level (2 years); Candidate of Science (4 years) , Doctor of Science (4 years)

We open Bachelor programmes only few years ago and it still not enough BSc graduates to apply for Master's programmers. However, Specialist degree applications are accepted for graduates interested in Master's programmers. It is the period of experience, the formation of educational materials, establishing a scientific and educational base, establishing contacts with the industrial organizations as a scientific base for training undergraduates.

Sate Educational standards of Ministry of Education and Science require the formation of Master's curriculum with the following structure:

Tab. 1 The general curriculum standard structure for Masters Level

Part	Types of studies	Credits
M1	General scientific part	18 - 24
	Basic block	9 - 12
	Elective component, including elective courses	6-9
M2	Professional part	36 - 40
	Basic block	18 - 20
	Elective component, including elective courses	16-22
M3	R & D, practical training	56
M4	Thesis	4
Total		120

In respect these requirements, the curriculum for Master's Program "Cadastre and Land Management" was developed with the following distribution of hours (credits).

Tab. 2 Structure of the curriculum for Master's Program "Cadastre and Land Management"

Part	Types of studies	Hours	Credits
M1	General scientific part	792	22
	Basic component	360	10
	Elective component, including elective courses	432	12
M2	Professional part	1404	39
	Basic component	724	20
	Elective component, including elective courses	680	19
M3	R & D, practical training		56
M4	Thesis		4
Total			120

The teaching process is divided into:

- Studies (parts M1 and M2), scientific research and industrial practice (part M3),
- Preparation and presentation of the final Thesis (Section M4).

Let us consider each of these parts.

M1 and M2:

Studies consist of general scientific disciplines (M1) and professional part (M2). Each part is divided into the Basic component (obligatory) and elective component. The basic part is mandatory for all universities, but elective part could be formed by each university independently.

The purpose of General scientific part - to familiarize the student with the modern science schools, research methodology, computer technology in science and education, trends in the development of information systems and technology, legal aspects.

The basic component of the General scientific part is represented in the following table.

1 semester	2 semester	3 semester
Applied Mathematics 3 credits	Legal support of innovation 2 credits	Philosophy and Methodology of Science 2 credits
Information Computer Technology 3 credits		

The purpose of professional component - develops the advanced competencies and skills in real estate cadastre, land monitoring, surveying and data processing of information, examine trends in GIS, LIS, methods of use of software and devices, modern information technology in land management, cadastre, land monitoring.

The Basic component of the Professional part, Master's Program "Cadastral and Land Management" is presented below.

1 Semester	2 Semester	3 Semester	4 Semester
Modern problems of Land Management and Cadastral 6 credits		Land and Real Estate Management 4 3ET	Real Estate Planning and Development 3 credits
	Real Estate Cadastral 4 credits	Automated systems of Cadastral (GIS and LIS) 3 credits	

Elective component of M1 and M2 parts are formed by University, which is set by the university.

MIIGAiK has developed the following profiles:

- Surveying and Land management;
- LIS (Land Information System);
- Real estate management and development
- Cadastral and Land Registration

According with the standards in RF the educational process should be provided with different educational technologies.

Therefore, the curricula provide the following educational technologies.

- Lectures (no more than 20% of all sessions);
- Practical and laboratory classes;
- Interactive sessions (in the form of discussions);
- Research in the laboratories of the University (simultaneously with studying);
- Practical training in the professional organizations (so simultaneously with studies, as in the summer time);
- Teaching Practices.

The report represents the problems faced by the Faculty of Economics and Land Management to establish new laboratory, technical and informational support of the teaching process, transition to blended learning as well as the problem of providing quality assurance control of teaching.

REFERENCES

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