

Report on the practice in T&L at the Matej Bel University (MBU)

Matej Bel University in Banská Bystrica (Slovak Republic) is one of the leading national universities. It was established in 1992 and currently it consists of the following faculties:

- Faculty of Natural Sciences
- Faculty of Philosophy
- Faculty of Economy
- Faculty of Law
- Faculty of Education
- Faculty of Political sciences and International relations

Due to the contents of the project we concentrate ourselves to the area of mathematics, computer science and natural sciences, therefore in the following we will describe the situation before the COVID 19 pandemic at the Faculty of Natural Sciences.

Structure and basic data of the Faculty of Natural Sciences

The faculty was established in 1995 as a result of division of the former Faculty of Humanities and Nature science into faculties of humanities and nature science. It consists of the following departments:

- Department of Mathematics
- Department of Computer Science
- Department of Physics
- Department of Biology
- Department of Chemistry
- Department of Environmental Sciences
- Department of Geography and Geology
- Department of Technical Sciences

It offers bachelor, master and PhD studies in the above topics as well as teacher training in combination of two subjects. It has 94 academic employees and over 600 students in internal study and about 50 students in external studies. The study programs accredited and offered by the faculty are the following:

Bachelor degree:

- Forensic and Criminalistic Chemistry
- Applied Geology
- Geography
- Environmental Safety
- Ecology and Protection of Ecosystems
- Mathematics
- Applied Computer Science
- Teaching (combination of 2 subjects)

Master degree:

- Applied Chemistry and Forensic Practice
- Applied Geology
- Geography and Regional Development

- Environmental Management
- Ecology and Protection of Ecosystems
- Mathematics of Data Analysis and Finance
- Teaching (combination of 2 subjects)

Doctoral degree:

- Geochemistry
- Evolution of Ecosystems and their Protection
- Remediation of Environmental Burdens
- Mathematical Analysis
- Theory of Physics Education

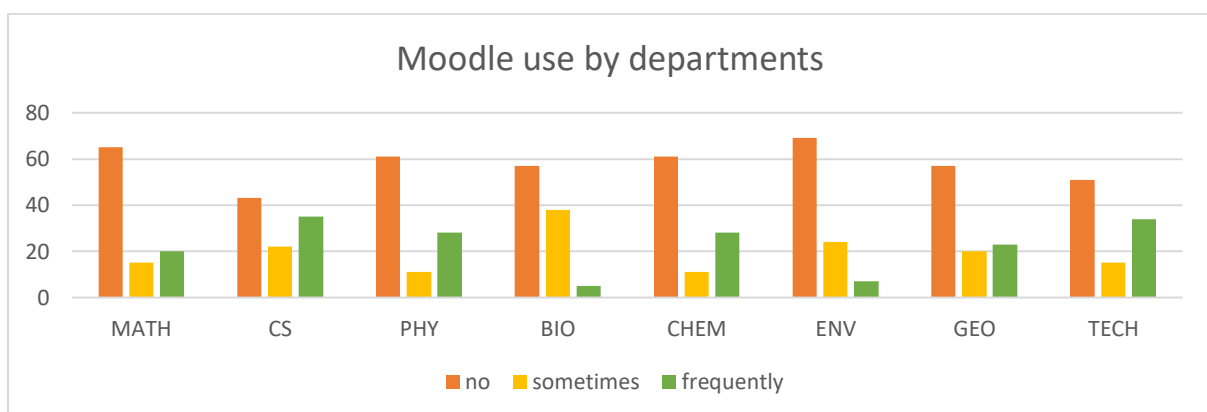
The number of students in particular programs in the academic year 2018/19 is in the following table:

Degree	Form of study		Total
	Internal	External	
<i>Bachelor</i>	383	47	430
<i>Master</i>	198	30	228
<i>Doctoral</i>	20	5	25
Total	601	82	683

Technical means for education

Thanks to the participation in previous project and institutional support all students and employees had access to computers connected to internet, including access to scientific databases, like ScienceDirect or WoS. All the departments possessed computer laboratories available also to students' individual work.

The major tool for the online support of education was the Moodle software, as the university standard. In the internal study programs, however, there were no subjects taught exclusively by Moodle, but it served to different levels as a complementary method of teaching. No other tools of online education, like MS Teams or Google Meet were used.



The table above shows the percentage of subjects delivered by particular department in which Moodle was used in educational process before pandemic.

Human sources

Before the pandemic the number of teaching staff at Faculty of Natural Sciences was 99. The following table shows numbers of staff members who graduated in particular scientific disciplines, i.e. not in educational programs (group A), and those who graduated in education (group B).

Department	MATH	CS	PHY	BIO	CHEM	ENV	GEO	TECH
A	7	3	3	4	5	8	2	9
B	5	12	5	9	10	1	13	3

As the table shows, the number of staff members graduated in education (58) was slightly higher than the number of graduates in particular subjects (41). Experience shows that this ratio is suitable for education in teacher training as well as e.g. advanced postdoctoral studies in mathematics, biology, chemistry, etc. Therefore, the long-term aim of the personal management is to maintain approximately equal share of the both groups.

This structure remained almost unchanged also during the pandemic.

Education before the pandemic

The education followed the standard system used in Slovak Republic, i. e. classical face to face education with average number of 24 lessons in Bachelor degree and 20 lessons in Master degree, with the exception of the last semester, that is mostly devoted to the preparation of the final thesis. The amount of the lessons was approximately equally divided among lectures and seminars. In the educational study programs at the Master level a considerable share of lessons are devoted to practical placement at elementary or secondary schools.

The Moodle software was used in the pre-pandemic time just as a complementary tool, it was never the principal method of education.