Customer Story

TECHNICAL UNIVERSITY OF KOSICE

Challenge

By building students' competency in industry standard software, the Faculty of Mining, Ecology, Management and Geotechnology seeks to prepare its students to tackle business challenges using statistical methods. Having learned these tools while at university, students will be better equipped for practice in the commercial sector.

A seismic shift toward software that, in industry, is synonymous with analytics

Students at TUKE tackle real-world data challenges with JMP®

Mining and ecology are not among the sectors where data analysis is a popular topic. However, analytics is increasingly penetrating areas where traditionally only those with some statistical background have really created applications for it. The Faculty of Mining, Ecology, Management and Geotechnology at the Technical University in Košice (TUKE), Slovakia, is also aware of this, as it is constantly striving to provide professors with the teaching aids and tools that will enable graduates to acquire new skills and competencies.

"Since data analysis is an essential part of any research task today, we have been thinking for a long time about the best way to teach the statistics used by practitioners in industry," says Assistant Professor Marcela Taušová, PhD.

In industry, JMP® is synonymous with analytics

After evaluating a variety of statistical software packages, administrators at TUKE chose to license JMP statistical discovery software from SAS. This decision, Taušová explains, was motivated by the value the university saw in providing students access to a tool that had already been vetted by commercial leaders. In industry, she says, JMP has become synonymous with analytics.

A campuswide JMP license now enables anyone affiliated with TUKE to access the software directly on their laptops after signing a licensing agreement. The Faculty of Mining, Ecology, Management and Geotechnology is now taking full advantage, using JMP in courses such as Quantitative Analysis Tools, Quality Management and Economic Statistics in the Earth Resource Management program; and Transport Data Processing and Statistical Processing in TUKE's Commercial Transport Logistics program.

Acquiring skills students can apply in their careers

Although Taušová admits that students are generally more passive today than they were 10 or 15 years ago, this trend is not reflected in their interest in statistics. On the contrary, every year, a number of students use JMP to prepare their final theses, which not only facilitate statistical calculations but also provide visually attractive graphical outputs.

Students welcome the opportunity to work with a tool like JMP that already has a widespread presence in practice primarily, Taušová says, because the ability

jmp Statistical Discovery™ From SAS

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>
> Marcela Taušová, Assistant Professor

to work with data has been particularly in demand in the labor market in recent years. JMP also strives to motivate students by awarding certificates that many employers value when accepting graduates.

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Not just for students

Statistical software also plays an important role in the research and scientific activities of professors and research faculty, as well as in their collaboration with external organizations. "We are using it to address a wide variety of research questions – from seismics in rock breaking, to the efficiency of photovoltaic panels, to the analysis of failures of conveyor belts and many others," explains Taušová.

Because the faculty has a wide scope and works closely with the business sector, it often has real data from practice. "It is not always known immediately the best way to deal with these industry data sets, and whether we are able to analyze them [without first cleaning the data]," notes Taušová. And that is where JMP comes in: exploratory data analysis and data quality checks make it easy to work with collaborators' data.

In a way, their research sets an example for students and, says Taušová, "every year, the use of JMP software is extended to other subjects, and we want to continue this trend."

Solution

The Technical University of Košice's campuswide JMP license makes it easy for any student or faculty member to download and use the software in academic teaching, learning and research.

Results

With JMP, students are now learning to use data analysis software that is widespread in practice, and for which they can obtain practice-recognized certificates. JMP significantly simplifies the implementation of statistical analyses and allows graduate and undergraduate students the opportunity to introduce more sophisticated statistics into their theses and dissertations. The software is also used widely by faculty members in their own research pursuits and publications.

To contact your local JMP office, please visit: jmp.com/offices