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Partners in Learning »

## Bulgarian University Creates ICT Master's Program

### Bulgaria

#### Customer Profile

Plovdiv University is the second-largest university in Bulgaria. Its Faculty of Mathematics and Informatics (FMI), which is responsible for mathematics and computer science teacher training, enrolls approximately 1,200 students from Bulgaria and abroad.

#### Situation

The university recognized that Bulgaria's teachers were not sufficiently trained in information and communications technology (ICT). As a result, students were not getting the computer skills that they needed to be successful in an increasingly computerized world.

#### Solution

FMI worked with Microsoft Partners in Learning to adapt and localize ICT curricula. As a result of the partnership, the department now offers a master's degree in the subject that boosts teachers' abilities to promote computer literacy in the classroom.

#### Benefits

- Formalized ICT training for teachers to earn a master's degree
- Graduated 100 teachers from the program in the first year—with 600 more slated for the next five years
- Reached 10,000 students

**“By joining forces with Partners in Learning, we’ve been able to localize, adapt, and update core ICT curricula. The innovative approach is based on teamwork in the classroom and is well-received by all teachers we’ve trained.”**

—Assen Rahnev, Dean of the Faculty of Mathematics and Informatics, Plovdiv University

The Faculty of Mathematics and Informatics, a department of Plovdiv University that educates mathematics and computer science teachers, recognized that Bulgarian educators were not trained in incorporating technology skills in the classroom. Working with Microsoft Partners in Learning, the department used Partners in Learning curricula to create a set of courses through which teachers could earn a degree.



#### Situation

Plovdiv University—or Paisiy Hilendarski as it is known in Bulgarian—is the largest institution of higher education in Southern Bulgaria and the second-largest university nationwide. Located in the city of Plovdiv, it serves more than 12,500 students with its eight faculties, or departments. In addition to degrees in various disciplines,

many of the country's teachers attain their teaching credentials at Plovdiv University.

As technology became more prevalent over the years, the university started seeing a trend: There just weren't enough teachers trained in incorporating technology into the classroom. Although many math and science teachers

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—Evgeniya Angelova, Assistant Professor, Faculty of Mathematics and Informatics, Plovdiv University

stepped into the void, they didn't always have a framework to communicate these skills effectively. In addition, there was nowhere these teachers could go to learn how to be more effective; the country lacked information and communications technology (ICT) training resources.

“There aren't enough teachers in Bulgaria who are trained in ICT,” says Professor Assen Rahnev, Dean of the Faculty of Mathematics and Informatics, Plovdiv University. “Teachers need extra education on how to teach IT in primary and secondary schools, and we wanted to formalize that education.”

The Faculty of Mathematics and Informatics (FMI) of Plovdiv University was the natural choice to extend this training; the department was already tasked with providing math and computer science teacher training. When Microsoft Bulgaria contacted the FMI team in 2004, FMI was quick to recognize the potential of the Microsoft Partners in Learning framework.

#### Solution

In 2004, FMI professors localized the Partners in Learning curriculum “Using Microsoft Office XP for Learning Projects.” (The program was such a success that FMI updated it to the Microsoft Office 2003 Editions the next year, and to the 2007 Microsoft Office system when it was released.) During this time, FMI was also beginning to collaborate with Junior Achievement, the international educational nonprofit organization, to create a program entitled “Entrepreneur and Business Profile in Secondary School.” Because this program teaches students accounting, graphics, and economic analysis using the Microsoft Office system, putting the two educational programs together was a natural decision. The result was the beginning of a comprehensive ICT teacher training program.

The Partners in Learning curriculum and FMI's work was officially approved by the government. FMI quickly localized a new program targeting teachers for grades five through eight, and enrolled more than 400 teachers in teacher training, which includes ICT and project-based learning. Each of those teachers then went on to train at least 10 more teachers in their own schools.

Not content to provide just informal training, FMI then sought to formalize ICT coursework by creating a set of master's degrees in ICT in 2006. Teachers can enroll in one of three master's level programs: “Teaching of School Computer Science and Information Technologies,” “IT in Primary School,” and “IT in Secondary School.” Each of these modules is based on the Partners in Learning curriculum on how to use the Microsoft Office system for learning projects. The one-year master's program is designed to supplement teachers' existing qualifications and give them the knowledge that they need to impart technical skills to students.

### Benefits

Plovdiv University has created a solid foundation for ICT teacher training in Bulgaria, and has become the preeminent training facility for computer technology in the country. In the time since FMI started working with Microsoft, the university has seen some outstanding results.

#### Created a master's program based on Partners in Learning ICT curricula

FMI clearly shows the success of localizing Partners in Learning curricula and making it available to teachers around the country. Because there are about 10,000 teachers who teach ICT in secondary schools—and ICT is now being introduced in primary schools—the number of teachers who participate in the program is expected to grow rapidly. The program graduated its first class of 100 teachers in 2007. However, teacher demand far outstrips capacity; every year since inception, at least 200 teachers have applied for 100 spaces. FMI is working to meet this demand by increasing capacity to 300 teachers within the next few years, with at least 600 teachers earning the degree in the next five years.

"By joining forces with Partners in Learning, we've been able to localize, adapt, and update core ICT curricula," says Rahnev. "The innovative approach is based on teamwork in the classroom and is well-received by all teachers we've trained."

#### Implemented formal ICT training in schools

Bulgaria is going from having spotty computer skills imparted in its schools to implementing rigorous project-based learning. The country is already seeing results. Currently, about 100 secondary schools have teachers who have undergone training—a number that is expected to include more than 300 within the next two to three years. According to official statistics, every teacher trained reaches an average of 100 students. As a result, the 100 teachers that have already graduated will influence 10,000 students—a number that will continue to grow.

Teachers are noticing a huge difference in how their students respond in the classroom. Teacher Tezdhan Aleytin Ali notes, "Microsoft-based projects are extremely useful for my everyday work. Training on Microsoft Office programs is much more interesting to students than traditional teaching methods; the project-based approach gives them real-world examples."

Adds Evgeniya Angelova, Assistant Professor at FMI, "Students gain knowledge by working in teams and using innovative training materials. All projects are based on real-life situations, which prepare students for work in the business environment."

For more information

Partners in Learning Web site:

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Published August 2008

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