

**Jaroslav ZUKERSTEIN, Jan NOVOTNÝ, Jan ČERNÝ**

J.E. Purkyně University, Czech Republic

## **Technical studies and the needs of the region**

### **Introduction**

Conception of Technical structural studies on Faculty of Production Technology and Management Jan Evangelista Purkyně University in Ústí nad Labem reflects the needs of Region North Bohemia. Faculty of Production Technology and Management is a scientific-pedagogical workplace, for graduates it currently offers technical-economical studies in bachelor, consequential master study program and doctor study program. It also ensures studies for teacher in field of Technical education. Content of faculty is also scientific and researching work.

### **1. History**

Ústí nad Labem is a city with tradition in education for teachers at Pedagogical Faculty. In 1991 tendencies of management of Pedagogical Faculty culminated with foundation of Jan Evangelista Purkyně University. The University is from that time consisted of Pedagogical faculty, Faculty of the Environment and Faculty of Social and Economic Studies.

According to new university law there were organization changes and from 1.12.1998 in frame of Jan Evangelista Purkyně University the Institute of Production Technology was established from Department of Technology at Pedagogical Faculty. This was a culmination of effort in opening of technical oriented studies at university. This step can be comprehended as an effort of university to guarantee education in whole region including the area of industrial production. From 1.9.2006 the Institute of Production Technology changed into Faculty of Production Technology and Management.

### **2. Technical studies**

Faculty of Production Technology and Management is presented as a guarantee of university education in enterprise field of the Northern Bohemia region. Currently there is minimum unemployment of graduates and high demand of graduates in industrial production. Faculty has sufficient number of qualified teachers and also material equipment for realization of study programs.

High-light program of the faculty is bachelor study program Manufacturing Technology, study field Production Control, which is a manager study of technology and economical character focused on controlling of production. There are two world-languages obligatory in the study. According to abilities and knowl-

edge the graduates can be applied in manager positions of enterprise, economical or business management.

Engineering – Production Security is the next field from group of bachelor studies. This study is focused on preparing graduates, who will be able to provide their knowledge in areas of production investment, repair business, servicing, reliability of production devices including correct diagnostics of devices and production of diagnostic systems in enterprise, with ability to communicate in foreign language and knowledge of IT technologies and enterprise economy.

Significant part of study is bachelor study program Specialization in Pedagogy, study field Technical Studies focused on education (double-fielded). Study is conceived as a double-field education and it is realized with combination of another field on the basis of agreement with Faculty of Science. Study plans guarantee the balance in two fields, studied together with Mathematics, Physics and Chemistry. Field Technical Studies focused on education is offered mainly to students who want to continue in master program after studies of bachelor program, field Pedagogy of Technical Education. Consecutive master program is currently being prepared to evaluation.

Consecutive master program Manufacturing Technology, with field of Preparation and Production Control is manager study of technical and economic character with focus on language knowledge in area of business and technics. Study is mainly focused on production control and its preparation.

Final part of the structure of technical studies is doctor study program Manufacturing Technology. This study is focused on preparation of specialists in area of production technology with wide knowledge of materials and analysis methods. Ability to speak a world-language in a specialized way is necessitated. The graduate is able to work scientifically in area of manufacturing technology; he or she has high knowledge of technology or materials including knowledge in related areas.

### **Conclusions**

Whole conception of studies on faculty reflects needs of industry in the region, faculty in its long-term intention of development respects necessities of enterprises. Due to this fact range of study program is focused on covering of needs in area of managing of enterprise, from production in lower positions to top-management. Parallel preparation of graduates for teaching in area of technics is a part of the conception, because importance of technology and technical education in currently the priority. Introducing new methods to grow the activity, independency and creativity of pupils as a project and problem methods [Chrzová 2000] and [Novotný, Zuckerstein 2007], are tools for popularization of technics and technical field on all grades.

## Literature

- Chrzová M. (2000), *Metoda projektové techniky* [In:] *Modernizace vysokoškolské výuky technických předmětů: Sborník příspěvků z mezinárodní konference*, Hradec Králové: Gaudeamus, s. 77–79, ISBN 80-7041-723-4.
- Novotný J., Zuckerstein J. (2007), *Projektové a problémové metody v praxi* [In:] *Bulletin vědeckých, výzkumných a pedagogických prací FVTM za období 2005–2006*, Ústí nad Labem: UJEP, s. 63–70, ISBN 80-7044-770-2.

## Abstract

This paper show conception of Technical structural studies on Faculty of Production Technology and Management Jan Evangelista Purkyně University in Ústí nad Labem reflects the needs of Region North Bohemia.

**Key words:** technology education, technical studies.

## Studia techniczne a potrzeby rozwoju regionu

### Streszczenie

W tym artykule pokazano koncepcję struktury studiów technicznych na Wydziale Technologii Produkcji i Zarządzania na Uniwersytecie Jana Ewangelisty Purkyně z Usti nad Łabą w północnej Republice Czeskiej.

**Słowa kluczowe:** edukacja techniczna, studia techniczne.