

University Politehnica Timisoara
Faculty of Engineering Hunedoara

Bachelor studies program: ECONOMIC ENGINEERING IN THE FIELD OF MECHANICS

Domain of study: ENGINEERING AND MANAGEMENT

Engineering and Management domain of study, which includes *Economic Engineering in the mechanical field* qualification, was implemented in the curricula at Faculty of Engineering of Hunedoara since 2000, and has the mission to prepare graduates of higher education through engineering and economic interdisciplinary studies, with accents of social and legal feature, in order to be able to design, organize and lead productive systems or their components. Through curricula of the study domain, it is provided useful background knowledge for understanding the functionality of productive systems, based on which graduates may become managers of the various organizational entities. Also, assumed mission includes training of engineers able to adapt to requirements of market economy and new technologies by covering a learning process designed within the European area of higher education and focused on a basic polyvalent and specialized training to ensure the graduate an advanced knowledge and real opportunities in the competition on the labor market.

Graduates of this specialization should responsible ensure, under expert assistance, of: projects to solve specific issues with the correct assessment of workload, available resources, time required for completion and risks in terms of enforcement ethical and professional ethics, safety and health at work; projects for specific manufacturing technologies of mechanical components and commissioning of mechanical equipment; works / projects as a leader in a multidisciplinary team and distribution of specific tasks to subordinates, with a positive attitude and respect for team members.

Professional competences:

- Performing calculations, demonstrations and applications in order to solve tasks specific to the fields of management and engineering, based on the knowledge acquired from fundamental sciences.
- Drawing up and interpretation of technical, economic and management specifications.
- Manufacturing, control and operation of mechanical products, equipment and systems.
- Exploitation of mechanical products, equipment and systems.
- Design, implementation and improvement of management systems.
- Corporate management and resource management.

Transversal competences:

- Responsible application of the principles, norms and values of professional ethics in performing professional tasks and in identifying objectives, available resources, work stages, execution time, deadlines and risks.
- Identification of specific roles and responsibilities within a multi -disciplinary work team and implementation of communication and organizational effectiveness techniques within the team.
- Identification of lifelong learning opportunities and effective use of information and documentation sources, as well as of computer -assisted professional development resources (web portals, specific software applications, databases, online courses, etc.) both in Romanian and in a language of international circulation.