

Course Syllabus

Academic year: 2018-2019

Institution	University of Petroșani
Faculty	Mechanical and Electrical Engineering
Field of study	Industrial engineering
Level	Bachelor
Program of study	Machine Building Technology

Course	Management of production and operations
Code	2BB6OD48
Year of study (semester)	III (VI)
Number of hours	42
Number of credits	3
Professor	Assoc. Prof., Ph.D. DOLEA Gabriel

No.	Topic
1.	Defining the concept of enterprise. Elements. Characteristics. The production function of the enterprise.
2.	Defining the environmental concept of the industrial enterprise and its main features. The main forms of the environment.
3.	Getting started with the study of systems. Cyber-industrial production systems.
4.	Production system: Objectives, structures, functions. Activities specific to the production system of the enterprise. Efficiency of the production system. Methods of establishing the production system (s).
5.	Production capacity; defining the notion. Factors that influence production capacity. Production capacity indicators. Methodological principles of determining production capacity. General Methodology of Calculation of Production Capacity.

6.	Company Design; methods and techniques to be used. General organization plan of the enterprise.
7.	Types of workplace placement on production areas. Defining. Objectives pursued. Technological process location. Location on product or object.
8.	The production process: definition of the notion, classification. Factors that influence the production process and its organization. The structure of production and design of an industrial enterprise.
9.	Technical preparation of production / manufacturing. The new product concept. Ways of product assimilation. Economic and technical problems that arise in the constructive-functional preparation of manufacturing.
10.	Development of manufacturing technologies; organizational issues, analysis and decision. The concept of manufacturing technology and the importance of technology conception. Solutions for the organization of technological conception.
11.	Manufacturing process analyzes to investigate new or improved processes. Graphical methods used to analyze and describe manufacturing processes.
12.	Material and organizational preparation of manufacturing. Compartments that make material and organizational preparation of manufacturing and their attributions.
13.	Laws and principles of organizing production processes in time and space.
14.	Industrial management under the conditions of global competition.