

Field: IT
Module title: Production logistics (ME.2)
Preliminary conditions: none
Education aims: To discuss a fundamentals of production logistics principles, objectives and models.
Education outcomes: Student can describe the essence, principles and objectives of logistics production management. Student knows Order to Delivery process and the main issues of OTD management. Student can make analysis of MRP II added production planning process in an enterprise. Student knows using MRP logic, how to create feasible MPS. Student knows production control logic of Kanban system. Student knows the JIT/LP manufacturing system. Student knows TOC principles. Student can make production plan in bottle neck circumstances. Student can compare advantages and disadvantages of MRP II/ERP, JIT/LP and OPT/TOC strategies.
Module type and contents: The essence of production logistics. Logistics management principles and objectives. OPT model of logistics production management. Management of the Order to Delivery process. Logistics production management strategies (MRPII, JIT/LP, OPT/TOC). Structure of logistics production management integrated MRP II/ERP system. Sales and operations planning (SOP), Master Production Scheduling (MPS), Materials Requirements Planning (MRP logic), Capacity Requirements Planning, Production Activity Control (PAC). The essence and goals of JIT/LP strategy. Elements of JIT/LP manufacturing system. JIT production planning and control. Kanban system. Lean Production implementation. Constraints Management strategy (OPT/TOC – Theory of Constraints). Theory of Constraints principles. Comparison of MRP II, LP, TOC strategies
Educational methods: Multimedia presentations, classes.
Assessment methods: Paper work
ECTS credits: 5
Students workload (hs.): 125
Form Number of hours: 24
Author of a module: Dąbrowska Magdalena, PhD
Module language: english