Study program: Mechanical Engineering, Module Industrial Engineering

Type and level of studies: BSC

Course unit: Production systems

Teacher in charge: Miladin Stefanovic, Aleksandar Aleksic

Language of instruction (English or other foreign language): English

ECTS:6

Prerequisites: no

Semester: Summer semester

Course unit objective:

Presentation of concept and detail of production systems, identification and management of production processes using general concepts of management of technologies and production, supply management, CAPP, costs management, just-in-time, TQM and CIM concept.

Learning outcomes of Course unit

Understanding and knowledge of general skills, knowledge and competences connected to structures, management and directions of development of production and other parts of production system.

Course unit contents

Theoretical classes

In the theoretical part of the course following fields will be covered: introduction to theory of the systems and management of the systems, information systems, basis of production systems, management of technologies and products, CAPP systems, supply management, planning and production control, quality management, organization resilience, maintenance management, cost management, directions of development of production systems.

Practical classes

Analysis of production system. Application of theoretical knowledge on real life problems.

Literature

- [1] James A. Rehg "Introduction to Robotics in CIM Systems" (5th Edition) ", Prentice Hall, 5 edition (March 8, 2002), ISBN 0130602434
- [2] Groover, M. P. (2007). Automation, production systems, and computer-integrated manufacturing. Prentice Hall Press.

| Number of activ | Other classes 1 | | | |
|-----------------|-----------------|---------------------------|---------------------|-----------------|
| Lectures: | Practice: 2 | Other forms of classes: 0 | Independent work: 0 | Other classes 1 |

Teaching methods

Classical, frontal lecturing, combined with individual and group approach using modern education equipment. Evaluation of knowledge: tests and seminars.

Examination methods (maximum 100 points)

| · · · · · · · · · · · · · · · · · · · | | | | | |
|---------------------------------------|----------------|---------------------|----------------|--|--|
| Exam prerequisites | No. of points: | Final exam | No. of points: | | |
| Student's activity during lectures | 10 | oral examination | 30 | | |
| practical classes/tests | 40 | written examination | | | |
| Seminars/homework | 20 | | | | |
| Project | | | | | |
| Other | | | | | |

Grading system

| Grade | No. of points | Description |
|-------|---------------|--------------------|
| 10 | 91 | Excellent |
| 9 | 81 | Exceptionally good |
| 8 | 71 | Very good |
| 7 | 61 | Good |
| 6 | 51 | Passing |
| 5 | >51 | Failing |