Course Unit Descriptor

Study Programme: Production engineering

Course Unit Title: Automated flexible technological systems

Course Unit Code: P307

Name of Lecturer(s): Tabaković Slobodan, Antić Aco

Type and Level of Studies: bachelor

Course Status (compulsory/elective): compulsory

Semester (winter/ summer): summer

Language of instruction: english

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 5

Prerequisites: none

Course Aims:.

Acquisition of basic knowledge in the field of automated flexible technological systems and structures

Learning Outcomes:
Knowledge of the AFT structures and their components: machining, manipulating, measuring and controlling, transportation and storage, and computer control system, as well as programming them.

Syllabus.
Introduction to the Flexible technological structures. Basic concepts and levels of complexity. Technological basis for the design and implementation of the AFT structures. Components of automated flexible systems. Numerically controlled machine tools as a component of AFT system and its development trend. Manipulating systems. Measuring and control systems. Transport and storage systems. Computer control systems. Composing of the AFT structures with different levels of complexity. Programming of AFT structures and their components (manual and automated). Programming of the NC machine tools. Programming of manipulating system. Programming of measurement and control systems.

Required Reading:
Tlusty, G. Manufacturing processes and equipment Prentice Hall, New Jersey 2000
Rehg, J.A., Kraebber, H.W. Computer-Integrated Manufacturing, Second edition Prentice Hall, New Jersey 2001

Weekly Contact Hours: 2	**Lectures: 3**	**Practical work: 0**

Teaching Methods:
Classes are held in the form of interactive lectures and laboratory practice and through consultations. In lectures,theoretical lessons is presented and illustrated with examples

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	**Final exam**	points
Attendance			
Computer exercises			
Tests (4x)			