

Tárgytematika / Course Description **Production and processing of engineering materials**

AJNB_ATTA008

Tárgyfelelős neve /

Teacher's name: dr. Dogossy Gábor

Félév / Semester: 2023/24/1

Beszámolási forma /

Assesment: Vizsga

Tárgy heti óraszám /

Teaching hours(week): 4/0/0

Tárgy féléves óraszám /

Teaching hours(sem.): 0/0/0

OKTATÁS CÉLJA / AIM OF THE COURSE

Introducing the students through the technological processes that are common in the mechanical industry, and by introducing their machines, establish the subjects included in the core material and the differentiated professional module.

TANTÁRGY TARTALMA / DESCRIPTION

The schedule and the content of the semester (exact schedule will be announced in the first week of education, taking into account holidays):

The contents of the first 7 weeks are (from 1 to 7 educational weeks):

Metallurgy; Primer casting of steel; Casting; Powder metallurgy; Hot bulk metal forming; Cold bulk metal forming; Sheet metal forming; Production and processing of polymers; Production of polymer composites; Joining of engineering materials; Welding

The contents of the second 7 weeks are (from 8 to 14 educational weeks):

Main production processes and auxiliary processes, mass production, production methods; Model and concept of machine engineering technology; Basic concepts of cutting machining; Cinematic and structural construction of cutting machines; The process of cutting machining, tool wear, tool life; Tools, tooling materials and auxiliary materials; Cutting machining; turning, drilling, milling, planing, chiseling, abrasive processes; Types of special machining; UP, HSC, MMS, EDM, LBM; Automation of manufacturing processes, CNC technique; Production cells, production systems; Machining planning and its documentation

SZÁMONKÉRÉSI ÉS ÉRTÉKELÉSI RENDSZERE / ASSESSMENT'S METHOD

Condition of signature

- participation in laboratory exercises is mandatory, incomplete performance will result in the refusal of the end of semester signature!
- laboratory exercises can only be replaced during the period of study and only at the times indicated by the department.
- submitting a homework on time from the second part.

Assessment method: oral exam

Before the exam will be a written entry exam from every two parts which must be passed.

The maximum score of the oral exam is 100 points, the exam pass is insufficient if the exam total does not reach 50 points and at least 25 points must be achieved separately from the two parts.

Exam grade scores: oral exam

- 0-49 points insufficient (1)
- 50-62 points sufficient (2)
- 63-74 points medium (3)
- 75-86 points good (4)
- above 87 points excellent (5)

KÖTELEZŐ IRODALOM / OBLIGATORY MATERIAL

The presentation slides will be published in Szelearning system.

AJÁNLOTT IRODALOM / RECOMMENDED MATERIAL