



COURSE DESCRIPTION CARD - SYLLABUS

Course name

Resource management for the products production

Course

Field of study

Year/Semester

Management and production engineering

2/3

Area of study (specialization)

Profile of study

Production systems

general academic

Level of study

Course offered in

Second-cycle studies

polish

Form of study

Requirements

full-time

elective

Number of hours

Lecture

Laboratory classes

Other (e.g. online)

30

Tutorials

Projects/seminars

Number of credit points

2

Lecturers

Responsible for the course/lecturer:

Responsible for the course/lecturer:

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Faculty of Mechanical Engineering

Piotrowo 3, 60-965 Poznań

Prerequisites

Basic knowledge of the basics of machine building, material processing technology, production management.

Course objective

Understanding the basics of material security for the production of industrial products made of metal and plastic materials.

Course-related learning outcomes

Knowledge

1. Student should characterize the materials used in processing and involved in the production process.



2. Student should describe the materials necessary for the implementation of the production process in the area of material technology.
3. The student should present the application (meaning) for the implemented process in the field of material technology.

Skills

1. Student is able to analyze the course of the manufacturing process.
2. Student can select the appropriate material for the implementation of the assumed process in the field of material technology.
2. Student can control the production process.

Social competences

1. Student is aware of the role of manufacturing processes in economy and human life.
2. Student shows active attitude in creation of product manufacturing processes.
3. Student is able to evaluate the quality and economics of product manufacturing processes.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture:

Pass based on a case study performed during the course and a test.

Programme content

Lecture:

1. Review of materials used in industrial production processes.
2. Manufacturing processes used in plastics processing and foundry technologies.
3. Assessment of suitability of materials for related technological processes and operations with processing.
4. Economic and organizational criteria, taking into account the purchase price, delivery date, transport, storage.
5. Technical and economic criteria, eg unit consumption, quantity and form of production waste.
6. Selection of materials for the production of cast products and plastics.
7. The course of the production of products from the inquiry, through the preparation of the offer, order, production to shipment of the product to the customer.

Teaching methods



Lecture: multimedia presentation illustrated with examples given on the board, solving problems.

Bibliography

Basic

1. Joint guidebook - Plastics, WNT, Warsaw 2006.
2. A. Tabor, Foundry, Wyd. Of the Krakow University of Technology, Krakow 2007.
3. Plastic processing, Erbel S., Kuczyński K., Marciniak Z., PWN, Warsaw, 1981.

Additional

1. M.Perzyk et al., Materials for the design of foundry processes, PWN Warszawa 1990.
2. Guide. Tworzywa Sztuczne, Collective work, WNT, Warsaw, 2006.
3. Haponiuk J.T .; Plastics in practice; Ed. Verlag Dashofer, Warsaw 2008.

Breakdown of average student's workload

	Hours	ECTS
Total workload	50	2,0
Classes requiring direct contact with the teacher	30	1,0
Student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation) ¹	20	1,0

¹ delete or add other activities as appropriate