



MODULE DESCRIPTION

Module code	full-time studies:	Z-ZIP1-E-532
	part-time studies:	Z-ZIPN1-E-532
Module name	Technology Documentation	
Module name in Polish	Dokumentacja technologiczna	
Valid from academic year	2019/2020	

MODULE PLACEMENT IN THE SYLLABUS

Field of study	MANAGEMENT AND PRODUCTION ENGINEERING
Level of education	1st degree
Studies profile	General
Form and method of conducting classes	Full-time and Part-time
Specialisation	Production and Innovation Management
Unit conducting the module	Department of Production Engineering
Module co-ordinator	Janusz Tuśnio, PhD, DSc
Approved by:	Dariusz Bojczuk, PhD, DSc

MODULE OVERVIEW

Type of subject / group of subjects	Specialist subject
Module status	Compulsory
Language of conducting classes	English
Module placement in the syllabus - semester	Semesetr V
Initial requirements	No requirements
Examination (YES/NO)	NO
Number of ECTS credit points	1

Method of conducting classes		Lecture	Classes	Laboratory	Project	Other
Per semester	full-time studies:				15	
	part-time studies:				9	

TEACHING RESULTS AND THE METHODS OF ASSESSING TEACHING RESULTS

Category	Symbol	Learning outcomes	Assignations to the directional learning outcomes
Skills	U01	A student is able to develop simple documentation regarding the implementation of an engineering and organizational task and prepare a text containing an overview of the results and the process of the task implementation.	ZIP1_U03
	U02	Can assess the usefulness of basic methods and tools for solving simple engineering tasks in the field of production engineering and organizational and managerial tasks.	ZIP1_U19
Social competences	K01	Understands the need and knows the possibilities of continuous improvement (2nd and 3rd degree studies, postgraduate studies, courses), which leads to the improvement of personal and social professional competences.	ZIP1-K01

TEACHING CONTENTS

Method of conducting classes	Teaching contents
Project	Development of the technological process of an uncomplicated element of the roller or sleeve class made by machining. Development of the technological process of a simple thin-walled product of the sleeve class made by cold working Preparation of a synthetic study related to the technology of machine building, construction of instrumentation or tools on the basis of the available literature and patents.

METHODS OF ASSESSING TEACHING RESULTS

Symbol	Methods of checking the learning outcomes (select X)					
	Oral exam	Written exam	Test	Project	Statement	Other
U01				X		
U02				X		
K01				X		

FORM AND CONDITIONS OF PASSING

Form of classes	Form of credit	Passing conditions
Project	Credit with grade	Correct execution of all projects and reports

STUDENT WORKLOAD

Balance of ECTS points												
No.	Type of student's activity	Student's workload										Unit
		full-time					part-time					
		Lc	C	Lb	P	O	Lc	C	Lb	P	O	
1.	Participation in the activities				15					9		h
2.	Other (consultation, exam)				2				2			h
3.	Number of hours of a student's as- sisted work	17					11					h
4.	Number of ECTS credit points which are allocated for assisted work	0,7					0,4					ECTS
5.	Number of hours of a student's un- assisted work	8					14					h
6.	Number of ECTS credit points which a student receives for unassisted work	0,3					0,6					ECTS
7.	Work input connected with practical classes	25					25					h
8.	Number of ECTS credit points which a student receives for practical classes	1,0					1,0					ECTS
9.	Total number of hours of a stu- dent's work	25					25					h
10.	Punkty ECTS za moduł <i>1 ECTS=25 hours</i>	1										ECTS

LITERATURE

1. Miłek T. (2023), *Experimental determination of material boundary conditions for computer simulation of sheet metal deep drawing processes*, Advances in Science and Technology Research Journal, 17 (5), 360-373.
2. Miłek T. (2022), *Effect of workpiece slenderness on the numerical flow lines distribution in the cross-section of a circular-symmetric part hot die forged with a hammer*, Advances in Science and Technology Research Journal, 16 (6), 108-117.
3. Miłek T. (2012), Materiały dydaktyczne do przedmiotu Techniques of production, Politechnika Świętokrzyska. W ramach projektu „Politechnika Świętokrzyska - uczelnia na miarę XXI w.". Program Operacyjny Kapitał Ludzki Priorytet IV Działanie 4.1. Poddziałanie 4.1.1.
4. Ming Wang Fu. (2017), *Design and Development of Metal-Forming Processes and Products Aided by Finite Element Simulation*, Part of the book series: Engineering Materials and Processes (EMP), Springer.
5. Thomas P. (2014), *Computer simulation of forging process of axially symmetrical forging with hammer* Journal of Achievements of Materials and Manufacturing Engineering, 64 (2), 85-89.