GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Selected aspects of pharmaceutical techniques, PG_00024946		
Field of study	Mechanical and Medical Engineering		
Date of commencement of studies	October 2021	Academic year of realisation of subject	2023/2024
Education level	first-cycle studies	Subject group	
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	6	ECTS credits	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Faculty of Mechanical Engineering and Ship Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. Wiesław Sawicki	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	0.0	0.0	0.0	15

E-learning hours included: 0.0

Learning activity and number of study hours

Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM
Number of study hours	15	3.0	7.0	25

Subject objectives

Skills and competences: characterization and description of essential oral dosage forms. Skills and competences: quality assessment of drug formulation, selection of storage conditions for medicinal products.

Learning outcomes

Course outcome	Subject outcome	Method of verification

Subject contents

Technology of oral solid formulations and related biopharmaceutical aspects:

- basic operations (granulation, tableting, coating, drying); types of tableting machines, construction and operation of laboratory tableting machine XP1 from Korsch company, drum coating - apparatus and the process, fluidbed granulation, drying and coating, coating excipients;
- granules characteristics, methods of production, excipients, tests;
- pellets characteristics, methods of production;
- tablets (oral, for oral cavity, for solutions and suspensions, coated and uncoated, excipients);
- gelatin capsules soft and hard, of modified release, multiparticulate delivery formulations;
- modified drug release oral formulations: enteric coated and prolonged release methods of production, role of the excipients;
- methods of quality control for tablets and capsules.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
term with credit	60.0%	100.0%

Recommended reading

Basic literature	Janicki St., Fiebig A., Applied Pharmacy. Manual for Students of pharmacy, PZWL, Warszawa 2002.
Supplementary literature	Łunio R., **Sawicki W**.: Tablets - methods and mechanism of manufacturing. Part I. Pol. Pharm., 2008; 64, nr 6, 265-275. **Sawicki W**., Krasowska M.: Methods and mechanism of tablets production. Part II. Pol. Pharm., 2009; 65, nr 1, 59-68.
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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