GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Apprenticeship NANO, PG_00052083		
Field of study	Nanotechnology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2027/2028
Education level	first-cycle studies	Subject group	Optional subject group
Mode of study	Full-time studies	Mode of delivery	at the university
Year of study	4	Language of instruction	Polish
Semester of study	7	ECTS credits	6.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Institute of Nanotechnology and Materials Engineering -> Faculty of Applied Physics and Mathematics -> Wydziały Politechniki Gdańskiej		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Marek Augustyniak	
	Teachers		

Lesson types and methods of instruction

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	0.0	0.0	0.0	0.0	0

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	0	10.0	150.0	160

Subject objectives

The internship is aimed at experiencing the realities of work in companies and non-university institutions. The student has the opportunity to reflect on his/her own preferences and professional options, primarily by making a preliminary decision regarding one of the two main technical career paths: the scientific path or the engineering path.
Detailed objectives are also listed here:
https://ftims.pg.edu.pl/studenci/studia-i-i-ii-stopnia/praktyki-zawodowe/ramowe-programy-praktyk
An important aspect is the negotiation of possible salary.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_U07] can conduct preliminary economic analysis of proposed solutions and undertaken engineering activities within the scope of nanotechnology.	Student is able to perform a preliminary economic analysis of proposed solutions and engineering activities undertaken in the field of nanotechnology	[SU3] Assessment of ability to use knowledge gained from the subject
[K6_K04] can cooperate and work in a team, adopting different roles.	The student is able to cooperate and work in a group, assuming various roles.	[SK1] Assessment of group work skills
[K6_K05] can present effects of their own work, provide information in a clear manner, communicate and self-evaluate, and give constructive feedback on the work of others.	Student is able to present the results of his/her work, convey information in a generally understandable way, communicate, perform self-assessment and constructively evaluate the results of the work of others.	[SK2] Assessment of progress of work

<table>
<tr><td>Subject contents</td><td>The internship program must include at least three selected tasks from the following skill blocks:
U1 Understanding the organization of the company and its business profile (production and/or services scope)
and (if applicable) the legal regulations governing the company's operations.
U2 Participating in occupational health and safety training, understanding the hazards occurring in the company and the appropriate procedures applied in this regard.
U3 Understanding the equipment and technical capabilities of the company.
U4 Working on the selection and use of analytical, simulation, or experimental methods to solve technical and technological problems.
U5 Working on programming or using basic software packages
for the organization's needs.
U6 Participating in laboratory work related to planning/synthesis/testing of materials.
U7 Participating in work related to determining and solvingtTechnological problems related to the synthesis/ application of nanoproducts.
U8 Work in the areas of market assessment, interdisciplinary collaboration, and commercialization of nanoproducts.
U9 Participation in work related to the risk assessment of the production of nanostructures on an industrial scale.
U10 Work in the design/construction of measuring instruments or research equipment.
U11 Participation in maintaining technical documentation and data analysis.
U12 Work related to the acquisition and processing of data in the fields of physics, materials science, nanotechnology, and related fields for the needs of the organization.
U13 Participation in work related to the selection of materials, equipment, and software for purchasing/ tendering procedures.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Strong motivation.</td></tr>
<tr><td>Assessment methods and criteria</td><td><table><tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr><tr><td>Report</td><td>100.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>not applicable</td></tr><tr><td>Supplementary literature</td><td>not applicable</td></tr><tr><td>eResources addresses</td><td></td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>1. What was the course of the practice/internship?

2. Does the student now have a better understanding of his/her career strategy?

3. Does the intern recommend the internship to other future interns in the company?

4. Has remuneration been awarded?

5. Other notes and comments.</td></tr>
<tr><td>Work placement</td><td>Not applicable.</td></tr>
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