

Subject card

Subject name and code	Fundamentals of Radiolocation - laboratory classes , PG_00201135						
Field of study	Marine Hydrography						
Date of commencement of studies	October 2026		Academic year of realisation of subject			2028/2029	
Education level	Bachelor's studies		Subject group			Obligatory subject group in the field of study Subject group related to practical vocational preparation	
Mode of study	full-time studies		Mode of delivery			at the university	
Year of study	3		Language of instruction			Polish	
Semester of study	5		ECTS credits			1.0	
Learning profile	practical		Assessment form			credit	
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Piotr Bekier				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	12.0	0.0	0.0	12
	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	12		2.0		11.0	25
Subject objectives	To introduce students to operator work on navigation radars - occupational health and safety regulations, optimization of imaging, various methods of measuring linear and angular quantities, interpretation of radar imaging.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[HML3-U18] is able to work individually and in team, manage the work of the team, in particular comply with health and safety regulations and ergonomics		is able to use (perform operator maintenance) the navigation radar on a basic level and comply with occupational health and safety regulations when operating radar devices			[SU6] demonstration of practical skills	
	[HML3-U11] is able to use navigation devices, means of technical observation and communication as well as measuring instruments, as well as apply in practice various techniques of measurement and observation in the field of professional activity related to the field of study		is able to: - optimize radar imaging; - initialize various methods for measuring linear and angular quantities; - interpret radar imagery, - use (perform operator maintenance) the navigation radar on a basic level and comply with occupational health and safety regulations when operating radar devices			[SU6] demonstration of practical skills	
Subject contents	Occupational health and safety regulations when operating radar devices. Introduction to operator operation of navigation radars: principles of band selection, optimization of radar display, selection of range, pulse length, display and motion presentation mode. Operator support of navigation radars: use of basic navigation radar functions (except ARPA), interpretation of radar images.						
Prerequisites and co-requisites	Completed lecture part of the course						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Practical exam	51.0%	100.0%
Recommended reading	Basic literature	1. MARSZAŁKOWSKI J., SOBCZYK J.: Użytkowanie morskich radarów nawigacyjnych. AMW, Gdynia 2000.	
	Supplementary literature	1. SHARMA K. K.: Introduction to Radar Systems. S.K. Kataria & Sons, New Delhi 2015. 2. SKOLNIK M.: Radar Handbook. McGraw Hill, 2008.	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Optimize radar display.Determine the bearing and distance toDetermine the CPA and TCPA for the given two objectsCreate automatic acquisition zones at a given angle and distance		
Work placement	Not applicable		

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