

Subject card

Subject name and code	Astronomical principles of geography - lecture, PG_00054139						
Field of study	Geography						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2025/2026		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	1		ECTS credits		2.0		
Learning profile	academic		Assessment form				
Conducting unit	Division of Atomic and Molecular Spectroscopy and Astrophysics -> Institute of Theoretical Physics and Astrophysics -> Faculty of Mathematics, Physics and Informatics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Piotr Gnaciński				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	20.0	0.0	0.0	0.0	0.0	20
	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	20		5.0		25.0	50
Subject objectives	To familiarise students with the determination of geographical coordinates, time calculation, the rising and setting of celestial bodies, the seasons and the structure of the solar system.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[GEOGRL3-W01] to an advanced degree, the specificity of geography as a discipline that integrates knowledge from various fields, its genesis and development, as well as the specifics of geographic sciences, their internal structure, object of research and place in the system of sciences	Students will understand the effects of the Earth's rotation and circular motion on natural phenomena.	[SW4] test/exam - oral or written
	[GEOGRL3-W02] key concepts in geography and theories on spatial variation and distribution of processes and phenomena on the Earth's surface	The student understands the concept of geographical coordinates.	[SW4] test/exam - oral or written
	[GEOGRL3-W03] in an advanced degree the processes and phenomena occurring in the natural environment of the Earth, with particular emphasis on the processes and phenomena occurring on the territory of Poland, especially the Coastal and South Baltic Lake Districts	The student understands where the seasons come from.	[SW4] test/exam - oral or written
	[GEOGRL3-W05] Has advanced knowledge of the environment Earth's geographic environment, understood as a unified system of interrelated and interacting each other's components; its diversity, functioning and dynamics of change, including the mutual interaction of environmental components in the area of South Baltic Coastal and Lake Districts	The student understands the origin of climate zones, the direction of passats and antipassats.	[SW4] test/exam - oral or written
Subject contents	1. Spherical coordinate systems used in astronomy and geography. 2 Elementary phenomena on the celestial sphere. 3 The influence of the Earth's atmosphere on observations of celestial bodies. 4 The annual motion of the Sun. Time calculation. Astronomical instruments. 5 Determination of latitude and longitude and time and azimuth from astronomical observations. 6. White nights, polar days and nights. Twilights and dawns. 7 The laws of planetary motion. The solar system. The Sun and its effect on the Earth.		
Prerequisites and co-requisites	Knowledge of mathematics and physics at secondary school level, including trigonometric functions.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	exam	51.0%	100.0%
Recommended reading	Basic literature	Kreiner J., Ziemia i Wszechświat - astronomia nie tylko dla geografów, Wydawnictwo Naukowe Uniwersytetu Pedagogicznego, Kraków, 2009 Mietelski J., Astronomia w geografii, PWN, Warszawa, 2013	
	Supplementary literature	Rybka E., Astronomia ogólna, PWN, Warszawa, 1983	
	eResources addresses	Podstawowe http://153.19.6.13/Astronomia.zip - This file contains photos and diagrams used during the lecture. Adresy na platformie eNauczanie:	
	Example issues/ example questions/ tasks being completed		
Work placement	Not applicable		

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