

Subject card

Subject name and code	Genetics of behavior - lecture, PG_00132828						
Field of study	Criminology						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2027/2028		
Education level	Master's studies		Subject group		Optional subject group		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	2		Language of instruction		Polish		
Semester of study	3		ECTS credits		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Neurobiology -> Department of Animal and Human Physiology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Wojciech Glac				
	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		0.0		5.0	25
Subject objectives	• Understanding of the genetic foundations of human behavior. • Knowledge and understanding of the neurogenetic basis of interindividual and sex differences in the context of differential susceptibility to criminal behavior. • Knowledge of the issue of genotypeenvironment correlation and interaction.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[KRYMMU2_W02] Has an in-depth knowledge of the nature of natural sciences related to the studied major, their place in the system of sciences and their mutual relations	The student knows and understands the basic mechanisms underlying genetic and epigenetic variation in behavior, as well as the methods used in behavioral genetics and human genomics to investigate the contribution of biological and environmental factors to behavioral traits.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion
	[KRYMMU2_W01] Has in-depth knowledge of the nature of legal sciences and penal sciences, their place within the system of sciences, their mutual relationships, and the main directions of their development, as well as their connections with other fields of science and the axiological and social determinants of activities related to counteracting crime.	The student knows and understands the significance of behavioral genetics for explaining behaviors relevant to criminology and understands the possibilities and limitations of using biological knowledge in the interpretation of antisocial and criminal behavior.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion
	[KRYMMU2_K01] Is aware of the level of their knowledge and skills, critically evaluates them, understands the need for lifelong learning, and recognizes the importance of knowledge in solving cognitive and practical problems; when unable to solve a problem independently, seeks the opinions of experts.	Based on feedback, the student is able to assess their level of knowledge in behavioural genetics and identify directions for their further development.	[SK1] oral statement/conversation/discussion
	[KRYMMU2_W06] Has in-depth knowledge and is familiar with the terminology used in psychology, sociology, and related disciplines applied in criminology, and understands the fundamental dilemmas of contemporary civilization associated with these fields. The graduate is also familiar with the basic principles of intellectual property and copyright protection, as well as the conditions for the creation and development of various forms of entrepreneurship.	The student knows and understands contemporary concepts concerning the interplay between genetic and environmental factors in shaping individual differences, particularly psychological traits and behaviors associated with the risk of antisocial and criminal behavior.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion
Subject contents	Theoretical foundations of behavioral genetics and research on personality development. Behavioral genetics in historical and philosophical perspective. Research methods in behavioral genetics. The contribution of genetic and environmental factors to the overall phenotypic variability of traits or behaviors. Genotypeenvironment interaction and correlation. The role of experience and learning in shaping behavior. Heritability of personality traits. Epigenetics in behavioral genetics. Experimental research on the mechanisms of personality development and behavioral genetics. Genetic studies in psychiatry and psychology. Genetic determinants of personality disorders, anxiety and stress-related disorders, addictions, and schizophrenia. Personality research molecular methods (dopamine receptor gene polymorphism, serotonin transporter gene). Research methods in behavioral genetics twin studies, family analyses, adoption method. Additive and non-additive variance. Molecular studies of temperament.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	discussions	51.0%	30.0%
	quizzes	51.0%	70.0%
Recommended reading	Basic literature	- McGuffin P. 2001. Genetyka zachowania. PWN. - Oniszczenko W. 2005. Genetyczne podstawy ludzkich zachowań. Przegląd badań w populacji polskiej. Gdańskie Wydawnictwo Psychologiczne. - Sadowski B. 2005. Biologiczne mechanizmy zachowania się ludzi i zwierząt. PWN.	

	Supplementary literature	• Dragan W.Ł., Oniszczenko W. 2008. Genetyka zachowania w psychologii i psychiatrii. Wydawnictwo Naukowe Scholar. • Oniszczenko W. 2000. Elementy genetyki zachowania. [W:] Strelau J. (red.). Psychologia. Podręcznik akademicki. Podstawy psychologii (t. 1, s. 205 - 226). Gdańsk: Gdańskie Wydawnictwo Psychologiczne. • Zagrodzka J., Górka T., Grabowska A. (red.) 2006. Mózg a zachowanie. PWN. • Oniszczenko W. 1997. Genetyczne podstawy temperamentu. Warszawa, Oficyna Wydawnicza Wydziału Psychologii Uniwersytetu Warszawskiego.
	eResources addresses	
Example issues/ example questions/ tasks being completed	• discussions Topic: Which behavioral traits resist explanation from a neurogenetic perspective? • tests (multiple-choice question) Indicate gene variants associated with increased susceptibility to aggressive behavior.	
Work placement	Not applicable	

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