

Subject card

Subject name and code	Fundamentals of Human Genetics, PG_00152019						
Field of study	Psychology						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2027/2028		
Education level	uniform Master'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	2	Language of instruction			Polish		
Semester of study	4	ECTS credits			3.0		
Learning profile	academic	Assessment form			credit		
Conducting unit	Department of Molecular Biology -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Ewa Piotrowska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	15.0	0.0	0.0	0.0	30
	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	30		10.0		50.0	90
Subject objectives	To familiarize students with fundamental genetic issues enabling them to understand the principles of inheritance of various traits (including individual cognitive traits) and the pathogenesis of genetic diseases (including diseases of the central nervous system).						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[PSYCHJ5_W05] Has a structured and in-depth knowledge of the specialization of psychology, including terminology, theory, and methodology.	Knows terminology, concepts and research methods used in human genetics.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
	[PSYCHJ5_K06] He/she is responsible for his/her own preparation for work, decisions taken, actions taken and their effects, he/she feels responsible towards people for whom good he/she tries to act, he/she expresses such an attitude in the environment of specialists and indirectly models this approach among others.	Recognizes the need for continuous acquisition and updating of knowledge in the field of genetics and adheres to the principles of broadly understood bioethics.	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	[PSYCHJ5_K07] He/she is sensitive to social and psychological problems, he/she is ready to communicate and cooperate with the environment, including people who are not specialists in a given field, and to actively participate in groups and organizations implementing psychological activities.	Actively and independently expands their knowledge in the field of genetics and promotes it among the public.	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
	[PSYCHJ5_K02] He/she is ready to take on professional and personal challenges; he/she is active, takes the trouble and is persistent in undertaking individual and team professional activities in the field of psychology; he/she is committed to cooperation.	Shows interest in development in the field of human genetics and strives to update their knowledge.	[SK1] oral statement/conversation/discussion
	[PSYCHJ5_W06] He/she has in-depth knowledge of human development in the life cycle, in biological, psychological and social aspects.	Knows the structure of cells, tissues, and organs, as well as the stages of their development.	[SW4] test/exam - oral or written
	[PSYCHJ5_U05] He/she has in-depth skills to present his/her own ideas, doubts, and suggestions, to support them with extensive argumentation in the context of selected theoretical perspectives, views of various authors, while being guided by ethical principles.	Engages in discussions on topics that may raise doubts of bioethical nature (prenatal and preimplantation diagnostics, assisted reproduction, etc.).	[SU1] oral statement/conversation/discussion
	[PSYCHJ5_U04] He/she is able to clearly, coherently and precisely express himself/herself orally and in writing in Polish and in a foreign language, he/she has the ability to construct extensive oral and written justifications on topics related to various psychological issues using various theoretical approaches, using the achievements of both psychology and other scientific disciplines.	Utilizes knowledge about genetically predisposed diseases in promoting neural tube defect prevention.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report
	[PSYCHJ5_U02] He/she is able to use and integrate theoretical knowledge in the field of psychology and related disciplines in order to analyse complex psychological, educational, aid or therapeutic problems, as well as diagnose and design practical activities.	Analyzes and independently constructs genetic crosses and pedigrees of human traits and diseases.	[SU4] test/exam - oral or written [SU5] implementation of a problem task
	[PSYCHJ5_U17] He/she has the ability to prepare a written study in the field of science relevant to the field of study being studied.	Analyzes and synthesizes information about selected genetic diseases in Polish and English from various sources.	[SU2] presentation/project/paper/report

	Course outcome	Subject outcome	Method of verification
	[PSYCHJ5_U13] He/she knows the symptoms and causes of selected disorders and lesions, as well as social dysfunctions and methods of their assessment to the extent necessary for the fields of science and scientific disciplines relevant for the studied field.	Can propose history taking for genetic diagnostic purposes.	[SU1] oral statement/conversation/discussion
	[PSYCHJ5_W10] Has an in-depth and expanded knowledge of the biological, pedagogical, social and philosophical bases of human mental functioning; understands the nature of functionality and dysfunctionality, harmony and disharmony, norm and pathology.	Knows the molecular basis of selected human genetic diseases.	[SW4] test/exam - oral or written [SW2] presentation/project/paper/report
Subject contents	Human genome. Basic principles of inheritance in human genetics. Techniques used in the diagnosis of genetic diseases: molecular biology methods and cytogenetic methods. Classification of disease groups based on mutation type and inheritance pattern. Overview of the most common human genetic diseases. Genetic counseling and prenatal diagnosis: basic principles of genetic disease diagnostics.		
Prerequisites and co-requisites	Completion of all courses included in the curriculum of the first three years of the integrated master's program in Psychology, specialization Neurobiopsychology at the University of Gdańsk		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	presentation in pairs	51.0%	20.0%
	activity in the practical classes	51.0%	10.0%
	final exam for the practical classes	51.0%	20.0%
	final exam for the lecture	51.0%	50.0%
Recommended reading	Basic literature	Tobias, Connor, Ferguson-Smith (Red. Latos-Bieleńska Anna): GENETYKA MEDYCZNA. PZWL, 2014	
	Supplementary literature	- J. Bał. Biologia molekularna w medycynie. Elementy genetyki klinicznej. Wydawnictwo Naukowe PWN, 2011. - M.I. Srebniak, A. Tomaszewska. Badania cytogenetyczne w praktyce klinicznej. Wydawnictwo Lekarskie PZWL, 2008.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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