UNIWERSYTET IM. ADAMA MICKIEWICZA W POZNANIU

Biological and Evolutionary Roots of Language

Educational subject description sheet

Basic information

Study programme Language, Mind, Technology **Speciality** - **Organizational unit** Faculty of English **Study level** Second-cycle programme **Study form** Full-time **Education profile** General academic	**Didactic cycle** 2024/25 **Subject code** 15LMTS.21K.14601.24 **Lecture languages** English **Course type** Obligatory **Block** Major subjects

Subject coordinator	Joanna Śmiecińska, Rafał Jończyk, Paula Orzechowska
Lecturer	Joanna Śmiecińska

Period	**Activities and hours**	**Number of ECTS points**
Semester 1	• Classes: 30, Graded credit	3

Goals

Code	Goal
C1	To convey knowledge about the phylogeny of human speech, taking into account evolutionary, anthropological, and genetic aspects
C2	To convey basic knowledge about the ontogeny of speech and the neurobiological foundations of language
C3	To convey knowledge about the similarities and differences between human and non-human animal communication
C4	To convey basic concepts related to computer modeling of language evolution
C5	To improve skills in composing scientific texts in English and creating presentations
C6	To enhance teamwork and discussion skills

Subject learning outcomes

Code	Outcomes in terms of	Learning outcomes	Examination methods
Knowledge – Student:			
W1	knows basic concepts in anthropogenesis, as well as the development and the evolution of speech;	LMT_K2_W01, LMT_K2_W02, LMT_K2_W03, LMT_K2_W04, LMT_K2_W05, LMT_K2_W06	Test
W2	is familiar with key concepts in the domain of ontogeny of speech and the neurobiological correlates of language	LMT_K2_W01, LMT_K2_W02, LMT_K2_W03, LMT_K2_W04, LMT_K2_W05, LMT_K2_W06	Test
W3	knows the basic similarities and differences between human and non-human animal communication;	LMT_K2_W01, LMT_K2_W02, LMT_K2_W03, LMT_K2_W04, LMT_K2_W05, LMT_K2_W06	Test
W4	is familiar with the main trends in computer modelling of language evolution	LMT_K2_W03	Test
Skills – Student:			
U1	is able to write, in collaboration with others, a short academic essay of between 600 and 1500 words on a selected topic related to the subject of the course and present it in class	LMT_K2_U01, LMT_K2_U02, LMT_K2_U03, LMT_K2_U05, LMT_K2_U06, LMT_K2_U10, LMT_K2_U12, LMT_K2_U19	Written work

Code	Outcomes in terms of	Learning outcomes	Examination methods
U2	is able to integrate information from the scope of human phylogeny and ontogeny as well as other areas of science (neurobiology of speech, studies of animal communication/language, genetics, language evolution modeling) in order to describe, according to the current state of knowledge, the possible biological and evolutionary foundations of speech and language.	LMT_K2_U02, LMT_K2_U03, LMT_K2_U06	Multimedia presentation, Written work
Social competences – Student:			
K1	reflects on the acquired knowledge and the need to update it in light of new scientific evidence	LMT_K2_K01, LMT_K2_K04	Multimedia presentation, Written work
K2	cooperates with others in a group; can lead discussions	LMT_K2_K03, LMT_K2_K04	Multimedia presentation

Study content

No.	Course content	Subject learning outcomes	Activities
1.	Basic facts about the theory of evolution	W1	Classes
2.	Human phylogeny and theories of language origin	W1, W2	Classes
3.	Genes FOXP2 and CNTNAP2 and speech	W2	Classes
4.	Neurobiological correlates of language and speech.	W2, W3	Classes
5.	Typical and atypical language acquisition in children	W1, W2	Classes
6.	Human language versus non-human animal communication	W1, W3	Classes
7.	Language evolution as a system – computer models simulating evolution	W4	Classes
8.	Principles of writing a scientific essay; teamwork	U1, U2, K1, K2	Classes
9.	Student presentations	U1, U2, K1, K2	Classes

Additional information

Activities	Teaching and learning methods and activities
Classes	Lecture with a multimedia presentation of selected issues, Conversation lecture, Discussion, Work with text, Audio and/or video demonstrations

Activities	Credit conditions
Classes	Passing occasional tests/quizzes Preparing a short research paper Multimedia presentation of the research paper Grading scale 1. very good (bdb; 5,0) - from 92% 2. good plus (db plus; 4,5) - from 84 % 3. good (db; 4,0) - from 76 % 4. satisfactory plus (dst plus; 3,5) - from 68 % 5. satisfactory (dst; 3,5) - from 60 % 6. unsatisfactory (ndst) - below 60%

Literature

Obligatory

1. Fitch, T. 2010. The evolution of language, CUP.

Optional

1. Glezerman, T. and V. Balkoski.1999. Language, Thought and the Brain. New York: Kluwer Academic.
2. Hauser, Marc D., Noam Chomsky, W. Tecumseh Fitch (2002). `The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?' Science 298:1569-1579
3. Hoff, Erika and Marilyn Shatz (eds.), 2007. Blackwell Handbook of Language Development (Blackwell Handbooks of Developmental Psychology).
4. Foley, W. 1997. Anthropological Linguistics. Oxford: Blackwell.
5. Kirby, S., T. Griffiths, and K. Smith. 2014. ”Iterated learning and the evolution of language”, Current opinion in neurobiology, 28. 108-114. https://doi.org/10.1016/j.conb.2014.07.014
6. Pääbo S. 2022. “The Neanderthal Genome and the Evolution of Modern Humans”. Nobel Prize lecture. https://www.nobelprize.org/prizes/medicine/2022/paabo/lecture/

Calculation of ECTS points

Activities	Activity hours*
Classes	30
Preparation for classes	15
Reading the indicated literature	15
Semester paper preparation	10
Preparation of a multimedia presentation	5
Student workload	**Hours** 75
Number of ECTS points	**ECTS** 3

* academic hour = 45 minutes

Efekty uczenia się dla kierunku

Kod	Treść
LMT_K2_K01	The graduate is ready to critical evaluation of one's knowledge and skills and the need for their continuous development in the context of the profession
LMT_K2_K03	The graduate is ready to continuous learning and improving their language skills
LMT_K2_K04	The graduate is ready to willingness to change opinions in light of available data or arguments and openness to new ideas
LMT_K2_U01	The graduate can use English at the C1 level of the Common European Framework of Reference for Languages, as well as another foreign language at the level specified within the study program
LMT_K2_U02	The graduate can search, analyze, evaluate, select, and use information from various sources, both traditional and multimedia
LMT_K2_U03	The graduate can effectively apply acquired subject knowledge to formulate and analyze research problems and justify their choices
LMT_K2_U05	The graduate can critically reflect on their own written and oral language expressions and modify them under the guidance of a lecturer/supervisor
LMT_K2_U06	The graduate can competently analyze the causes and developments of specific language phenomena
LMT_K2_U10	The graduate can substantively and professionally argue and draw conclusions using the views of other authors in English
LMT_K2_U12	The graduate can prepare, formulate, and write academic papers in English within the field of linguistics with appropriate structure, composition, organization, and argumentation
LMT_K2_U19	The graduate can effectively plan and organize individual and group work and pursue lifelong learning
LMT_K2_W01	The graduate knows and understands place and significance of linguistics in relation to other sciences, as well as the characteristics of the subject matter and methodology of linguistics to an advanced degree
LMT_K2_W02	The graduate knows and understands topics, concepts, and issues related to linguistic research to an advanced degree
LMT_K2_W03	The graduate knows and understands theories, methodologies, general and specific issues in the field of English linguistics to an advanced degree
LMT_K2_W04	The graduate knows and understands content, form, and functions of key terminology in the field of linguistics and information technology
LMT_K2_W05	The graduate knows and understands main directions of development and most important new achievements in the field of English linguistics and information technology
LMT_K2_W06	The graduate knows and understands complex nature of language to an advanced degree