

**COURSE SYLLABUS****I. General Information**

Course name	Logic
Programme	Biotechnology, Informatics, Mathematics, European Studies
Level of studies (BA, BSc, MA, MSc, long-cycle MA)	BA, BSc
Form of studies (full-time, part-time)	full-time
Discipline	philosoph
Language of instruction	English

Course coordinator/person responsible	dr Piotr Lipski
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Type of class ( <i>use only the types mentioned below</i> )	Number of teaching hours	Semester	ECTS Points
lecture	15	I	2
classes	15	I	

Course pre-requisites	none
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**II. Course Objectives**

1. Introducing students to the basic issues of logic and critical thinking, as well as indicating their applications in communication and argument analysis.
2. Presentation of basic syntactical categories, main types of definitions and basic types of arguments.
3. Preparing students to evaluate validity and soundness of arguments and to recognize informal fallacies.

**III. Course learning outcomes with reference to programme learning outcomes**

Symbol	Description of course learning outcome	Reference to programme learning outcome
<b>KNOWLEDGE</b>		
W_01	Student knows the basic types of expressions, elementary types of knowledge-creating activities and the main ways of justifying statements.	Un_W13
W_02	Student knows types of scientific and academic disciplines, understands their methodological characteristics and mutual relations.	Un_W14
<b>SKILLS</b>		
U_01	Student is able to analyze simple arguments by establishing their structure and assessing their correctness.	Un_U10
U_02	Student is able to solve simple problems of classical logic calculus.	Un_U11
U_03	Student is able to recognize, name and characterize the basic logical errors.	Un_U12

SOCIAL COMPETENCIES		
K_01	Student is ready to work in a team and to discuss in a substantive way.	Un_K13

#### IV. Course Content

Basic concepts and history of logic and critical thinking.  
 Main syntactical categories (sentences, names, functors).  
 Logical partition.  
 Definitions - their role, types and criteria of correctness.  
 Nature, structure and types of arguments.  
 Informal fallacies.  
 Classical propositional calculus.

#### V. Didactic methods used and forms of assessment of learning outcomes

Symbol	Didactic methods <i>(choose from the list)</i>	Forms of assessment <i>(choose from the list)</i>	Documentation type <i>(choose from the list)</i>
KNOWLEDGE			
W_01	Conversational lecture	Test/Exam	Protocol/Evaluated test/Evaluated exam
W_02	Conversational lecture	Test/Exam	Protocol/Evaluated test/Evaluated exam
SKILLS			
U_01	Practical classes	Test/Exam	Protocol/Evaluated test/Evaluated exam
U_02	Practical classes	Test/Exam	Protocol/Evaluated test/Evaluated exam
U_03	Practical classes	Test/Exam	Protocol/Evaluated test/Evaluated exam
SOCIAL COMPETENCIES			
K_01	Discussion	Observation	Protocol

#### VI. Grading criteria, weighting factors ...

1. The knowledge of information delivered during the course.
2. The ability to recognize basic types of definitions and arguments.
3. the ability to assess the correctness of definitions.
4. The ability to assess the validity and soundness of arguments.
5. The ability to recognize informal fallacies.

The acquired knowledge and skills will be verified in the form of a written exam conducted during the examination session and in the form of a written test conducted during the semester.

The course ends with two grades, one concluding classes and one concluding lecture.

#### VII. Student workload

Form of activity	Number of hours
Number of contact hours (with the teacher)	<b>30</b>
Number of hours of individual student work	<b>30</b>

### VIII. Literature

<b>Basic literature</b>
Handouts (prepared by the lecturer on the basis of textbooks listed in the additional literature) and shared with students via MS Teams.
<b>Additional literature</b>
<p>P. J. Hurley, "A Concise Introduction to Logic", any edition.</p> <p>W. Hodges, "Logic", any edition.</p> <p>K. Ajdukiewicz, "Pragmatic logic", D. Reidel Publishing Company, PWN, Warszawa, 1974.</p> <p>F. Howard-Snyder, D. Howard-Snyder, R. Wasserman, "The Power of Logic", any edition.</p> <p>I. M. Copi, C. Cohen, K. McMahon, "Introduction to Logic", any edition.</p>