Приложение № 1

к распоряжению Финуниверситета

от «\_\_\_» \_\_\_\_\_\_\_\_2019 № \_\_\_\_\_\_\_

**Syllabus**

**1. Name of a subject Logic and argumentation theory**

**2. Mapping of learning outcomes (list of competences), with the relevant indicators described and subject learning outcomes indicated**

 The section lists the graduates’ coded competencies that are to be developed during the learning process, indicators that show their development (generalized descriptions of specific actions performed by the graduate that clarify and reveal the competence content), learning outcomes (knowledge, skills) with indicators of competence development (in the form of a table):

 Table 1

|  |  |  |  |
| --- | --- | --- | --- |
| Competence code | Competence  | Competence development indicators[[1]](#footnote-1) | Learning outcomes (skills[[2]](#footnote-2), and knowledge) and indicators that show competence development  |
| PKN-1 | Knowledge of basic scientific concepts and categorical apparatus of modern economy and their application in solving applied problems | 1. A student demonstrates knowledge of modern economic concepts, models, leading schools and areas of development of economic science, uses a categorical and scientific apparatus in the analysis of economic phenomena and processes.2. Reveals the essence and features of modern economic processes, their connection with other processes taking place in society, critically rethinks current socio-economic problems.3. Competently and efficiently uses Russian and foreign sources of scientific knowledge and economic information, knows the main directions of the state's economic policy. | 1.1.A student is supposed to know the concept of argumentation as a logical-communicative procedure, composition, structure and fields of argumentation, justification and criticism, ethical standards of discussion, tricks in dispute1.2. A student is able to detect logical fallacies in public speeches, violation of ethical standards during argumentation, use of tricks in a dispute2.1. A student is supposed to know the basics of strategy and tactics of argumentation2.2. A student is able to detect errors and use incorrect techniques in arguments3.1. A student is supposed to know the strategy and tactics of argumentation as a logic-communicative procedure, its composition and structure, possible errors and incorrect techniques encountered during argumentation3.2. A student is able to correctly contact Russian and foreign sources of scientific knowledge for analysis and assessment of argumentation in a specific situation. |
| UK-1 | Ability to perceive the intercultural diversity of society, in socio-historical, ethical and philosophical contexts, analysis and worldview assessment of processes and patterns | 1. A student uses knowledge about the laws of the development of nature, the intercultural diversity of society to form a worldview assessment of the processes taking place.2. A student uses philosophical thinking and logic skills to formulate reasoned judgments and conclusions in professional activities.3. A student works with various masses of information to identify the laws of the functioning of man, nature and society in socio-historical and ethical contexts. | 1.1. A student is supposed to know the essence of argumentation as a logic-communicative procedure, its composition and structure, possible errors and incorrect techniques encountered during argumentation1.2. A student is able to detect errors and use incorrect techniques in argumentation2.1. A student is supposed to know the basics of logic that contribute to the development of the general culture of the individual; to carry out professional activities on the basis of a comprehensively meaningful culture of thinking.2.2. A student is able to correctly and fully reflect the results of activities in speech and documentation, characteristic and necessary for the chosen professional field.3.1. A student is supposed to know the key ethical standards of the communication society and the ethical aspects of argumentation.3.2. A student is able to build argumentation and criticism taking into account the key ethical standards of the communication society and the ethical aspects of argumentation. |
| UK-10 | Ability to search, critically analyze, summarize and systematize information, use the system approach to solve tasks | 1. A student is able to describe the composition and structure of the required data and information, competently implements the processes of their collection, processing and interpretation2. Substantiates the essence of what is happening, reveals patterns, understands the nature of variability3. It formulates the classification feature, identifies the corresponding groups of homogeneous "objects," identifies the general properties of the elements of these groups, evaluates the completeness of the classification results, and shows the applied purpose of classification groups.4. Competently, logically, arguably forms its own judgments and assessments. Distinguishes facts from opinions, interpretations, assessments, etc. in the reasoning of other participants in the activity.5. Arguably and logically represents point of view through and based on a system description. | 1.1 A student is supposed to know the universal logical structure of concepts, judgments and conclusions existing in any natural or artificial language.1.2 Be able to identify the logical structure of speeches in English.2.1 A student is supposed to know the methods of proving the correctness of universal correct logical forms.2.2 Be able to apply methods of proving the correctness of universal correct logical forms in any language.3.1 A student is supposed to know the most important methods of argumentation in public speech and business and professional discourse in a foreign language3.2 Be able to apply the most important methods of argumentation in public speech and business and professional discourse in English4.3 A student is supposed to know the key aspects of academic communication and English speech etiquette.4.4 A student is supposed to know the key aspects of academic communication and speech etiquette of English.5.1 A student is supposed to know the basic principles that enable competent and effective use of foreign-language sources of information5.2 Be able to competently and effectively use foreign-language sources of information, including analyzing public speeches by video fragments.6.1 A student is supposed to know the methods of competent construction and reasoning of written theses.6.2 Be able to correctly formulate and argue written theses. |
|  |  |  |  |

**3. Place of the subject in the curriculum**

Logic and argumentation theory explores links between the Humanities and Social Sciences, with theories (including decision and action theory) drawn from the cognitive sciences, economics, sociology, law, logic, and the philosophy of science.

Its main ambitions are to develop a theoretical framework that will encourage and enable interaction between disciplines, and to integrate the Humanities and Social Sciences around their main contributions to public life, using informed debate, lucid decision-making, and action based on reflection.

* The course is aimed at promoting critical thinking through training in basic methods of logical analysis, basic methods of constructing correct deductive and inductive reasoning, and developing skills needed to apply the methods in professional activity and daily life.
* The course goal is to assist students in acquiring skills needed to produce arguments and critical thinking skills, to participate in discussions and to develop an ability to competently and convincingly defend own point of view in front of the audience.

**4. Workload in credits and academic hours, with class work (lectures and seminars) and self-study indicated**

Table 2

|  |  |  |
| --- | --- | --- |
| **Type of work**  | **Total** **(in credits and hours)**  | **Semester (Module) 3 (in hours)** |
| **Overall workload**  | ***3 credits, 108 hours*** | ***108*** |
| ***Class work***  | ***34*** | ***34*** |
| *Lectures*  | ***16*** | ***16*** |
| *Seminars, practicals*  | ***18*** | ***18*** |
| ***Self study***  | ***74*** | ***74*** |
| Formative assessment  | ***test*** | ***test*** |
| Summative assessment  | ***credit*** | ***credit*** |

**5. Subject content (with the thematic components indicated).**

**Theme 1. Introduction to logic and argumentation theory**

Those whose professional interests lie in the study of such important social phenomena as discussion, debate and argumentation have in general an empirical attitude. They want to know and study observable phenomenon, a particular type of social interaction, but first of all we need to introduce the basic principles of logical thinking.

Basic principles and forms of thinking. Fundamental laws of logic.

**Theme 2. Notion and proposition as forms of thinking**

Notion as a unit of thinking. Classification of notions. Logical operations on notions. Logical methods and methods of notion formation. Term and terminology. The role of notions in scientific knowledge and political science.

Relations between notions.

Euler's circular diagrams as an instrument of logical analysis.

Simple propositions. Types and composition of simple propositions.

Categorical propositions, their division in quality and quantity. United classification. Distribution of terms in propositions.

Complex proposition and its types. Formation of complex propositions from simple ones using logical connectives: conjunction, disjunction, implication, equivalence and negation. Conditions for the validity of complex propositions.

Connecting, separating, conditional, equivalent propositions.

Complex propositions in the interpretation of professional standards.

**Theme 3. Inference as a form of thinking. Deduction, induction, analogy.**

Deduction as a form of inference

The concept of deductive reasoning. The necessary nature of logical consequence in deductive reasoning. Forms of deductive reasoning and the concept of inference rules.

A simple categorical syllogism and its derivatives. Syllogistic calculus. Solving problems using SCS. Enthymeme. Restoration of the syllogism from the enthymeme. Polysyllogisms.

Inductive reasoning

Types and rules of inductive reasoning.

Complete induction. Demonstrative nature of the conclusion.

Incomplete induction. Types of incomplete induction. Probabilistic evaluation of the degree of validity of inductive generalizations. Methods of scientific induction.

**Theme 4. Theory and practice of argumentation and criticism. Basics of eristic.**

Persuasion as an art and the main ways of its formation. Argumentation as a reason giving. Discussion and dispute. Proponent, opponent and audience. Refutation. Rules and methods of refutation. Ethical imperatives in the argumentative process. Strategies and tactical recipes of argumentation. Fallacies and exploits of argumentation.

 **6. List of teaching and methodological materials needed for the students self-study**

1. D.Zarefsky. Argumentation: The Study of Effective Reasoning
2. Kirillov V.I. Logic: textbook/V.I. Kirillov. - 3rd ed., Erased. - M.: Norma: INFRA-M, 2019. - 240 p. - EBS ZNANIUM.com. - URL: http://znanium.com/catalog/product/1031643 (case date: 10.10.2019). - Text: electronic.

**6.1. List of questions for student self-study and types of out-of-class activities**

The section lists types of out-of-class activities that correspond to items in the subject content description.

There is a list of questions the students should answer while working independently.

Table 3

|  |  |  |
| --- | --- | --- |
| **Itemized subject content**  | **Questions the students should answer within the self-study process**  | **Types of out-of-class activities**  |
| **Introduction to logic and argumentation theory** | Applications of logic and argumentation theory.  | Case Studies and Problem-Based Learning |
| **Notion and Proposition as forms of thinking**  | Formation of complex propositions from simple ones using logical connectives: conjunction, disjunction, implication, equivalence and negation. Conditions for the validity of complex propositions. | Case Studies and Problem-Based Learning |
| **Inference as a form of thinking. Deduction, induction, analogy** | The concept of deductive reasoning. The necessary nature of logical consequence in deductive reasoning. Forms of deductive reasoning and the concept of inference rules.Forms and rules of scientific induction.Probabilistic evaluation of the degree of validity of inductive generalizations. | Case Studies and Problem-Based Learning |
| **Theory and practice of argumentation and criticism. Basics of eristic** | Applications of argumentation strategies and tactical recipes. Strategies and tactical recipes of argumentation. Fallacies and exploits of argumentation. | Case studies, free writing |

**6.2. List of questions/assignments/topics for students’ preparation to formative assessment**

Templates of test questions and exercises:

Prove the inference true or false and explicate its logical form

1. If Mr. Smith was the one to commit the theft, he knows where the stolen money is. Mr. Smith doesn 't know where the stolen money is, but he knows where the stolen items are. Consequently, Smith did not commit theft.
2. If a person speaks lies, he is either mistaken himself or knowingly misled others. This man is telling lies, but is clearly not mistaken. Consequently, he knowingly mislead others.
3. Some plants are poisonous

Wormwood is a plant

Therefore, the wormwood is poisonous

1. Government loan bonds are not included in М2 money aggregate, as the latter includes cash, checks and demand deposits, while government loan bonds are not included in any of these categories.

Approximate credit questions

1. The subject of logic, its role in the formation of human rational activity. The main stages of the development of logic.
2. The truth of thought and the logical correctness of reasoning.
3. Basic forms of logical thinking.
4. Concept as a unit of thinking. Terms, concepts, word. Class, subclass, element of the class.
5. Classification of concepts, logical operations over them.
6. The content and scope of the concept.
7. The law of the inverse relationship between the scope and content of the concept.
8. Proposition as a form of thinking. Simple and complex Propositions, their kinds.
9. Complex Proposition and its types. Conjunctive, disjunctive, implicative, equivalent Propositions, conditions of their truth.
10. The relationship of incompatibility: the opposite (contrarity), contradiction (contradiction).
11. Inference as a form of thinking, its structure and types.
12. Features and significance of deductive and inductive reasoning in scientific practice.
13. Deductive conclusions. Forms of deductive reasoning.
14. A simple categorical syllogism. Enthymeme. Composition and rules of the syllogism.
15. Conclusions from Propositions with relations: reflexivity, symmetry, transitivity.
16. Lemmatic conclusions: a dilemma, a trilemma, and a polylemma.
17. Inductive reasoning. Types of inductive reasoning: complete and incomplete induction.
18. Scientific induction, its kinds and applications.
19. The relationship of induction and deduction in the process of cognition.
20. The concept of logical law. Basic laws of logical thinking.
21. The concept of argumentation. Argumentation and persuasion.
22. The subjects of the argument: the opponent, the opponent, the audience.
23. Structure of the argumentation: thesis, arguments, demonstration.
24. Fallacies in the argument: paralogisms and sophisms.
25. Logical fallacies in the thesis: loss of thesis, substitution of the thesis.
26. Refutation. Rules and methods of refutation.
27. Ethical imperatives in the argumentative process.
28. Arguments and proofs in economic knowledge.

**7. Mandatory and optional reading list**

Mandatory reading list. The list should not exceed 3 entries.

1. Kirillov V.I. Logic: textbook/V.I. Kirillov. - 3rd ed., Erased. - M.: Norma: INFRA-M, 2019. - 240 p. - EBS ZNANIUM.com. - URL: http://znanium.com/catalog/product/1031643 (case date: 10.10.2019). - Text: electronic.
2. Kirillov V.I. Logic: Textbook for bachelors/V.I. Kirillov, A.A. Starchenko; ed. V.I. Kirillova - M.: Prospect, 2010, 2014, 2015. - 240 p. - Direct text. "Same. – 2015. - EBS Prospect. - URL: http://ebs.prospekt.org/book/28055 (case date: 10.10.2019). - Text: electronic.
3. Volobuev A.V. Workshop on Discipline "Logic. Theory of argumentation" M., Prometheus, 2019 - 48 s.

Optional reading list

1. Getmanova, A.D. Logika: textbook/Getmanova A.D. - Moscow: KnoRus, 2016. - 235 p. - (for bachelors). — ISBN 978-5-406-04712-5. - EBS BOOK.ru. - URL: https://book.ru/book/918108 (case date: 10.10.2019). - Text: electronic.
2. Getmanova, A.D. Logic for lawyers. With a collection of tasks: a textbook/Getmanova A.D. - Moscow: KnoRus, 2017. - 344 sec. - ISBN 978-5-406-05957-9. - EBS BOOK.ru. - URL: https://book.ru/book/927725 (case date: 10.10.2019). - Text: electronic.
3. Ivin, A. A. Logic for journalists: textbook for academic undergraduate studies/A. A. Ivin. - 2nd ed., Corrected and Additional - Moscow: Publishing House Yurite, 2019. - 200 p. - (Bachelor. Academic course). — ISBN 978-5-534-06556-5. - Text: electronic//EBS Ewright [site]. - URL: https://www.biblio-online.ru/bcode/437439 (case date: 10.10.2019).
4. Ivin, A. A. Practical logic: tasks and exercises: a textbook for academic undergraduate studies/A. A. Ivin. - 2nd ed., Corrected and Additional - Moscow: Publishing House Yurite, 2019. - 171 p. - (Bachelor. Academic course). — ISBN 978-5-534-08802-1. - Text: electronic//EBS Ewright [site]. - URL: https://www.biblio-online.ru/bcode/438613 (case date: 10.10.2019).

**8. List of IT resources, incl. the list of software, information and reference systems (as appropriate).**

**8. 1. Software:**

1. Windows, Microsoft Office software;

2. ESET Endpoint Security antivirus software; etc.

**8.2. Databases and information and reference systems**

E.g.

1. Garant information and reference system;

2. Consultant Plus legal information system;

3. <http://ru.wikipedia.org/wiki/Wiki> e-encyclopedia;

4. <http://www.skrin.ru/> database; etc.

**8.3. Certified software/hardware used for information protection**

None.

Financial University under the Government of the Russian Federation

Department of humanities

A.V.Volobuev

**Logic and argumentation theory**

**SYLLABUS**

***Level of Study:*** *Bachelor’s Degree*

***Field of Study:*** *Economy*

***Study Program:*** *International finances*

1. To be filled in when the updated Financial University educational standards and federal state educational standards of higher education “3++” are implemented. [↑](#footnote-ref-1)
2. Skills are described when the Financial University educational standards of the 1st generation and federal state educational standards of higher education “3+” are implemented. [↑](#footnote-ref-2)