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**Federal State Autonomous Educational Institution for Higher Education  
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA  
NAMED AFTER PATRICE LUMUMBA  
(RUDN University)**

**Department of National Economy**

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**COURSE SYLLABUS**

**ARTIFICIAL INTELLIGENCE IN INTERNATIONAL BUSINESS**

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**Recommended by the Didactic Council for the Education Field:**

**38.04.01 «Economy»**

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**The course instruction is implemented within the professional education  
programme of higher education**

**«International Business»**

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**2026**

## 1. THE COURSE GOALS

The course is designed to enable students develop a systematic understanding of the role and capabilities of artificial intelligence as a strategic resource for improving business efficiency, competitiveness and value. This includes the ability to assess the feasibility of implementing AI, manage digital transformation projects, and predict the economic consequences of technological change.

## 2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course "ARTIFICIAL INTELLIGENCE IN INTERNATIONAL BUSINESS" is aimed at developing the following competencies (parts of competencies):

*Table 2.1. The list of competencies formed by students in the mastering the COURSE*

<b>Competence code</b>	<b>Competence</b>	<b>Competence achievement indicators (within this course)</b>
GC-7.	Able to search for the necessary sources of information and data, perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems; evaluate information, its reliability, build logical conclusions based on incoming information and data	GC-7.1. Searches for the necessary sources of information and data, perceives, analyzes, remembers and transmits information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems; GC-7.2. Evaluates information, its reliability, builds logical conclusions based on incoming information and data.
GPC-6.	Able to critically evaluate the possibilities of digital technologies for solving professional tasks, work with digital data, evaluate their sources and relevance.	GPC- 6.1 Able to use modern digital and information technologies in solving professional tasks. GPC- 6.2 Able to find and use relevant digital data to solve practical tasks of professional activity.
PC-4.	Capable of organizing and conducting general preventive, targeted, and individual activities to counter the spread of terrorist ideology and neo-Nazi ideas	PC - 4.1. Determines the content and forms of preventive work to counter the ideology of terrorism and neo-Nazism in accordance with current regulatory legal acts. PC - 4.2. Organizes and conducts preventive activities in Educational or social settings in accordance with established requirements and regulatory documents.

### 3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The Course "ARTIFICIAL INTELLIGENCE IN INTERNATIONAL BUSINESS" refers to the Optional Disciplines formed by the participants in the educational relations of the block Higher Education Programme Structure

As part of the Higher Education Programme Structure, students also master other disciplines and / or practices that contribute to the achievement of the planned results of mastering the Course "ARTIFICIAL INTELLIGENCE IN INTERNATIONAL BUSINESS".

*Table 3.1. The list of components of the Higher Education Program Structure that contribute to the achievement of the planned results of mastering the Course*

<b>Competence code</b>	<b>Competence</b>	<b>Previous Disciplines (Modules) *</b>	<b>Subsequent Disciplines (Modules)*</b>
GC-7.	Able to search for the necessary sources of information and data, perceive, analyze, memorize and transmit information using digital means, as well as using algorithms when working with data obtained from various sources in order to effectively use the information received to solve problems; evaluate information, its reliability, build logical conclusions based on incoming information and data	International trade Corporate innovation policy	Management of sustainable business development
GPC-6.	Able to critically evaluate the possibilities of digital technologies for solving professional tasks, work with digital data, evaluate their sources and relevance.	International trade Corporate innovation policy	Business' evaluation and company's cost management
PC-4.	Capable of organizing and conducting general preventive, targeted, and individual activities to counter the spread of terrorist ideology and neo-Nazi ideas	Business' evaluation and company's cost management	Corporate governance Corporate Security Doing business in Russia

\* - filled in in accordance with the matrix of competencies

#### 4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

Course Workload and Academic Activities 5 credits, including 2 credits for the course work

*Table 4.1. Types of academic activities during the period of the HE program(mastering)*

Types of academic activities during the period of the HE programmastering		Course workload, academic hours	Semesters			
			1	2	3	4
<i>Contact academic hours</i>		54			54	
lectures		18			18	
Seminars		36			36	
Course work		72			72	
<i>Self-study, academic hours</i>		36			36	
<i>Evaluation and assessment</i>		18			18	
<b>Course workload</b>	academic hours	<b>180</b>			<b>180</b>	
	credits	<b>6</b>			<b>6</b>	

#### 5. COURSE CONTENTS

*Table 5.1. The content of the course (module) by type of educational work*

Name of the course module	Topic title	Content of the topic	Types of academic activities
Module 1. Artificial intelligence	Topic 1.1. Introduction to Artificial Intelligence	The history of artificial intelligence: the Turing test; Rosentblatt perceptron; expert systems; Deep Blue; data; Watson and DeepMind; GPT-3 and AlphaFold; DeepSeek.	Lectures, seminars
	Topic 1.2. Data science.	Data Science; Data Mining; Большие данные (Big Data).	Lectures, seminars

<b>Name of the course module</b>	<b>Topic title</b>	<b>Content of the topic</b>	<b>Types of academic activities</b>
	Topic 1.3. Areas of artificial intelligence	Technologies for working with big data. Methodology of project management for data analysis. Areas of artificial intelligence application	Lectures, seminars
Module 2. Machine learning	Topic 2.1. Machine learning technology	Machine learning methods. Advantages and disadvantages of machine learning. The task of learning with a teacher. The concept of a "Precentor". A test sample. Quality metrics. Overfitting. Mathematical methods of machine learning. The task of classification,	Lectures, seminars
	Topic 2.2. Formation of the concept of Deep machine learning	Deep learning. Deep learning ideas : end-to-end learning of the entire system; learning object representations — informative feature descriptions.	Lectures, seminars
Module 3. Specialized types of neural networks	Topic 3.1. Transformer models	Transformers are based on the mechanism of attention (self-attention). The multi-head attention approach. Normalization. The GPT (Generative Pretrained Transformer) model. ChatGPT. The Bidirectional Encoder Representations from Transformers (or BERT) model.	Lectures, seminars
	Topic 3.2. An example of using neural networks from Sber and Kandinsky.	Image generation based on the description.	Lectures, seminars

## **6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS**

*Table 6.1. Classroom Equipment and Technology Support Requirements*

<b>Classroom for Academic Activity Type</b>	<b>Classroom equipment</b>	<b>Specialized educational / laboratory equipment, software and materials for mastering the discipline</b>
Lecture	Classroom, equipped with a set of specialized furniture; whiteboard; a set of devices includes portable multimedia projector, laptop, projection screen, stable wireless	Laptop, projector, board, screen Software: Microsoft Windows, MS Office / Office 365, MS Teams,

Classroom for Academic Activity Type	Classroom equipment	Specialized educational / laboratory equipment, software and materials for mastering the discipline
	Internet connection.	Chrome (latest stable release), Skype
Seminars	Classroom, equipped with a set of specialized furniture; whiteboard; a set of devices includes portable multimedia projector, laptop, projection screen, stable wireless Internet connection.	Laptop, projector, board, screen Software: Microsoft Windows, MS Office / Office 365, MS Teams, Chrome (latest stable release), Skype
Self-studies	Classroom, equipped with a set of specialized furniture; whiteboard; a set of devices includes portable multimedia projector, laptop, projection screen, stable wireless Internet connection.	Laptop, projector, board, screen Software: Microsoft Windows, MS Office / Office 365, MS Teams, Chrome (latest stable release), Skype

## 7. RESOURCES RECOMMENDED FOR COURSE STUDY

- *Main reading(sources)*

1. Erokhin, V., Gao, T., & Yu, P. (2026). *International Trade and Economic Development in BRICS: Challenges and Opportunities*. Singapore: Springer Nature. <https://link.springer.com/book/9789819588008>.
2. Zondi, S. (2022). *The Political Economy of Intra-BRICS Cooperation: Challenges and Prospects*. Cham: Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-97397-1>.

- *Additional (optional) reading (sources)*

1. Bastanifar, I., Khan, K.H., & Koch, H. (2025). Understanding BRICSIZATION Through an Economic Geopolitical Model. *Journal of Open Innovation: Technology, Market, and Complexity*, 11(1), 100440. <https://doi.org/10.1016/j.joitmc.2024.100440>.
2. Nach, M., & Ncwadi, R. (2024). BRICS Economic Integration: Prospects and Challenges. *South African Journal of International Affairs*, 31(2), 151–166. <https://doi.org/10.1080/10220461.2024.2380676>.
3. Omoigberale, O. (2025). The Expanded BRICS: A Catalyst for Global Transformation or Advocate for Incremental Change? *South African Journal of International Affairs*, 32(1–2), 51–70. <https://doi.org/10.1080/10220461.2025.2518522>.
4. Prabhakar, A.H. (2026). *The BRICS Coalition and a New Global Order*. Apple Academic Press. <https://www.appleacademicpress.com/the-brics-coalition-and-a-new-global-order-/9781779642929>.

- Electronic libraries with access for RUDN students . Databases and search engines

EBS of RUDN University and third-party EBS, to which university students have access based on concluded agreements:

- RUDN Electronic Library System - RUDN EBS <http://lib.rudn.ru/MegaPro/Web>
- ELS "University Library Online" <http://www.biblioclub.ru>
- EBS Yurayt <http://www.biblio-online.ru>
- ELS "Student Consultant" [www.studentlibrary.ru](http://www.studentlibrary.ru)
- EBS "Lan" <http://e.lanbook.com/>

2. Databases and search engines:

- Yandex search engine <https://www.yandex.ru/>
- Google search engine <https://www.google.ru/>
- abstract database SCOPUS [http://www.elsevierscience.ru/products/scopus/-](http://www.elsevierscience.ru/products/scopus/)

*Educational and methodological materials for independent work of students in the development of the discipline/module\*:*

1. *A course of lectures on the discipline "ARTIFICIAL INTELLIGENCE IN INTERNATIONAL BUSINESS".*

2. *Topics for independent reports*

3. *Essay Topics*

\* - *all educational and methodological materials for independent work of students are placed in accordance with the current procedure on the page of the discipline in TUIS!*

<https://esystem.rudn.ru/course/index.php?categoryid=833>

## **8. EVALUATION MATERIALS AND SCORE-RATING SYSTEM FOR ASSESSING THE LEVEL OF FORMATION OF COMPETENCES IN THE COURSE**

**Evaluation materials and a point-rating system\* for assessing the level of competence formation (part of competences) based on the results of mastering the discipline "ARTIFICIAL INTELLIGENCE IN INTERNATIONAL BUSINESS" are presented in the Appendix to this Work Program of the discipline.**

**\* - OM and BRS are formed on the basis of the requirements of the relevant local normative act of the Peoples' Friendship University of Russia.**

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