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Federal State Autonomous Educational Institution of Higher Education
Peoples' Friendship University of Russia named after Patrice Lumumba
RUDN University

FACULTY OF SOCIAL SCIENCES AND HUMANITIES
educational division (faculty/institute/academy) as higher education programme developer

COURSE SYLLABUS

DIGITAL TECHNOLOGIES IN PUBLIC ADMINISTRATION
Course title

Recommended by the Didactic Council for the Education Field of:

41.04.04 Political Science
field of studies / speciality code and title

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

MA IN POLITICAL SCIENCE, POLITICAL INSTITUTIONS AND VALUES
higher education programme profile/specialisation title

2026

1. COURSE GOAL(s)

The goal of the course «Digital technologies in Public Administration» is to present the conceptual framework for the digitalization of the public sphere of modern society and the state, reveal the principles of building and functioning of electronic and digital government, the technologies of which are increasingly used in the world, including proactive public services and super services, platform solutions, technologies for working with open and big data, developments in the field of artificial intelligence, augmented reality and smart surveillance, blockchain technologies that have a significant impact on the effectiveness of public administration.

2. REQUIREMENTS FOR LEARNING OUTCOMES

Mastering the course «Digital technologies in Public Administration» is aimed at the development of the following competences:

Table 2.1. List of competences that students acquire through the course study

Competence code	**Competence descriptor**	**Competence formation indicators** (within this course)
GC-7	Able to: search for the necessary sources of information and data, perceive, analyze, remember 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 received from various sources in order to effectively use the received information to solve problems; GC-7.2. Evaluates information, its reliability, builds logical conclusions based on incoming information and data.
GPC-10	Able to master the tools for working with large amounts of structured and unstructured information, use modern digital methods of processing, analysis, interpretation and visualization of data in order to solve the tasks of professional and research activities in the field of political science.	GPC-10.1. Uses information and communication technologies and software to work with large volumes of information to solve problems of professional and research activities in the field of political sciences; GPC-10.2. Proficient in modern digital methods of data processing, analysis, interpretation and visualization.
GPC-2	Able to search for and apply promising information and communication technologies and software for comprehensive training and solving problems of professional activity.	GPC-2.1. Applies modern technologies for searching and systematizing information to integrate and forecast the development of political processes. GPC-2.2. Uses specialized databases and software to quickly search for information necessary to solve professional problems.

3. COURSE IN HIGHER EDUCATION PROGRAMME STRUCTURE

The course «Digital technologies in Public Administration» is part of the mandatory component of Block 1 "Courses (Modules)" of the higher education degree program.

As part of the Higher Education Academic Programme, students also study other courses and/or practices that contribute to the achievement of the planned learning outcomes of the discipline «Contemporary Schools of Thought in Russian and Global Political Science».

Table 3.1. The list of the higher education programme components/disciplines that contribute to the achievement of the expected learning outcomes as the course study results

Competence code	Competence descriptor	Previous courses/modules*	Subsequent courses/modules*
GC-7	Able to: search for the necessary sources of information and data, perceive, analyze, remember 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.		Pre-graduation internship;
GPC-10	Able to master the tools for working with large amounts of structured and unstructured information, use modern digital methods of processing, analysis, interpretation and visualization of data in order to solve the tasks of professional and research activities in the field of political science.		Pre-graduation internship;
GPC-2	Able to search for and apply promising information and communication technologies and software for comprehensive training and solving problems of professional activity.		Research work in the semester; Pre-graduation internship;

* To be filled in according to the competence matrix of the higher education programme.

4. COURSE WORKLOAD AND ACADEMIC ACTIVITIES

The total workload of the course is 2 credits 72 academic hours.

Table 4.1. Types of academic activities during the periods of higher education programme mastering

Type of academic activities		**Total academic hours**	**Semesters/ training modules**			
				2		**4**
Contact academic hours		*17*				
Lectures (LC)		17				
Seminars (workshops/tutorials) (S)		0				
Self-studies		*46*				
Evaluation and assessment (exam/ passing/failing grade)		*9*				
Course workload	academic hours	**72**				
	cred	**2**				

Type of academic activities		Total	Semesters/ training modules			
				2		4
	its					

* To be filled in regarding the higher education programme correspondence training mode.

5. COURSE CONTENTS

Table 5.1. Course contents and academic activities types

Course module title	Course module contents (topics)	Topics contents	Academic activities types
Module 1. Digital Technologies in Public Administration	Topic 1.1. Open Government	Concept and essence of open government as a philosophy and set of technological solutions. Differences from e-government. Principles: transparency, participation, collaboration. Key elements: open data (machine-readable formats), openness of processes (public discussions, public control), openness of government activities (budgets, inspections, results), transparency of public procurement. Technological infrastructure. Role in shaping the digital public sphere and improving public services. Russian practice: results and limitations.	*LC, S*
	Topic 1.2. Electronic State (E-State)	Concept, goals, and objectives. Definition of e-government as interaction between authorities, citizens, and business using ICT. Main goals: accessibility of services, reducing administrative barriers, optimizing internal processes. G2X models: G2C (citizens), G2B (business), G2G (interagency), G2E (employees). Infrastructure: Unified Portal of Public Services (Gosuslugi), SMEV (interagency interaction), ESIA (identification), sectoral GIS. Maturity levels: from online presence to proactive services ("life situations"). Principle of "data entered once." Development in the context of digital transformation.	*LC, S*
	Topic 1.3. Electronic Administration	Concept of electronic administration as internal digital transformation of government bodies. Difference from e-government (external services vs. internal optimization). Goal: efficiency, reduced bureaucracy, faster document flow. Key elements: electronic document management (EDM), process automation, digital personnel records, financial activities. Process reengineering: redesigning regulations for digital environment. Task management: deadline control, transparency. G2G interaction without human involvement. Infrastructure: EDM systems, qualified electronic signature (QES), corporate portals for civil servants, secure channels. Results: less paper, faster decisions, transparency, preparation for further digitalization. Information security requirements.	*LC, S*
Module 2. Society and the State in the Era of Digitalization	Topic 2.1. Society and State vs. Digital Algorithms in the Public Sphere	Concept of the digital public sphere (transformation of Habermas's classical model). Key platforms: social networks, messengers, government portals, petition platforms. New roles for society: from passive recipient to active participant (co-author of policy, controller). E-participation: crowdsourcing, public discussions, participatory budgeting. State strategies: monitoring, direct communication, crowdsourcing, filtering/moderation. Positive effects: transparency, trust, reduced protest potential, faster feedback. Risks: digital divide, disinformation (fakes), information overload.	*LC, S*
	Topic 2.2. Digital	Definition: automated systems for decision-making, ranking, moderation, and recommendations. Differences from traditional	*LC, S*

Course module title	Course module contents (topics)	Topics contents	Academic activities types
	Algorithms as a New Actor in the Public Sphere	institutions: speed, scale, opacity, lack of accountability. Conflicts: transparency vs. "black box" (trust undermined); sovereignty vs. transnational platforms; legal regulation vs. speed of change; moderation vs. censorship; manipulation of public opinion. Solutions: legal regulation, digital literacy, civil society oversight.	
	Topic 2.3. The State in Conditions of Digitalization: The Digital Control Mode	Concept of digital control: collection, analysis, and use of citizen data for governance, security, and regulation. Tools: video surveillance and facial recognition ("Safe City"); communication monitoring (SORM); tracking systems ("Platon," ERA-GLONASS, digital passes, QR codes); unified identification (Gosuslugi, biometrics); predictive analytics and big data; social ratings (China's experience). Functions of state digital control. Models under different political regimes. Positive and negative effects. Risks and challenges.	*LC, S*
Module 3. Open and Big Data in Public Administration	Topic 3.1. Open Data in Digital Governance Practice	Concept and essence of open data: government data in machine-readable formats (CSV, JSON, XML, RDF) freely usable by anyone without restrictions (except attribution). Difference from "published data" (PDFs, scans – NOT open data). Principles of open data (Sunlight Foundation, Open Knowledge Foundation). Connection to "Open Government" concept – transparency and participation. Infrastructure: national open data portals. Categories of published data. Economic and social value (McKinsey, World Bank). Barriers and problems. Legal regulation and personal data protection.	*LC, S*
	Topic 3.2. Big Data in Digital Governance Practice	Concept of big data: approaches, tools, and methods for processing huge volumes of diverse data to obtain previously inaccessible analytical results. Characteristics: 5V model. Difference from open data and traditional statistics. Sources for public administration. Technologies and applications in governance. Advantages for the state. Risks and challenges. Legal and ethical regulation: personal data laws (RF – 152-FZ). Data ownership: state, citizen, or corporation? Principles of responsible use.	*LC, S*
Module 4. Digital Technologies in Public Administration	Topic 4.1. Artificial Intelligence Technologies	Concept of AI: intelligent systems performing creative functions without rigid algorithms. Difference from traditional programming. Key AI technologies. Applications in public administration: social sphere and healthcare, law enforcement, tax administration, smart cities, public services, justice. Advantages, risks, and challenges.	*LC, S*
	Topic 4.2. Augmented Reality Technologies	Concept of AR: overlaying digital information onto the real world in real time. Key property: maintaining connection with physical space while expanding context. Applications: transport, urban planning, public services, healthcare, education, housing, emergencies (EMERCOM). Advantages, risks, and limitations.	*LC, S*
Module 5. Blockchain Technology in the Modern World	Topic 5.1. Cryptocurrency	Concept: decentralized digital currency based on cryptography. Difference from fiat money. Key characteristics and types. Technology: blockchain, keys, mining (PoW), staking (PoS). State interaction: legal status in different countries. Russian regulation. Economic risks and advantages.	*LC, S*
	Topic 5.2. Cryptocurrency Exchange	Concept: online platform for buying, selling, exchanging cryptocurrencies and converting to fiat. Difference from traditional stock exchanges. Types: CEX (centralized) and DEX (decentralized). Main functions: spot, margin, futures, staking, storage. State regulation and risks.	*LC, S*
	Topic 5.3. ICO (Initial Coin Offering)	Concept: crowdfunding for crypto projects – issuing tokens to investors in exchange for cryptocurrency or fiat. History: 2013–2017 as alternative to venture financing. Key participants and process. Token types. Evolution: IEO, IDO. Risks for investors	*LC, S*

Course module title	Course module contents (topics)	Topics contents	Academic activities types
		and the state. Global regulation.	

* - to be filled in only for **full** -time training: *LC - lectures; LW - lab work; S - seminars.*

6. CLASSROOM EQUIPMENT AND TECHNOLOGY SUPPORT REQUIREMENTS

Table 6.1. Classroom equipment and technology support requirements

Type of academic activities	Classroom equipment	Specialised educational / laboratory equipment, software, and materials for course study (if necessary)
Lecture	A lecture hall for lecture-type classes, equipped with a set of specialised furniture; board (screen) and technical means of multimedia presentations.	
Self-studies	A classroom for independent work of students (can be used for seminars and consultations), equipped with a set of specialised furniture and computers with access to the electronic information and educational environment.	

* The premises for students' self-studies are subject to **MANDATORY** mention

7. RESOURCES RECOMMENDED FOR COURSE STUDY

Main readings:

1. Kosorukov, A. A. (2020). *Digital state control* (Study guide).
2. Halpin, E. F., Griffin, D., Dissanayake, C., & Mahtab, N. (n.d.). *Digital public government in developing nations: Policy and practice*. (Incomplete information: publisher, year, and place missing)
3. IGI Global. (2018). Political and cultural issues in digital public administration: Computer science & IT. In *Book Chapter*. (Incomplete information: chapter title, editors, and page range missing)
4. Yang, K., & Miller, G. J. (n.d.). *Handbook of research methods in public administration*. Public Administration and Public Policy (Vol. 134). (Incomplete information: publisher, year, and place missing)
5. Kamolov, S. (2021). *Digital state management*.

Additional readings:

1. Aggarwal, A. (2015). *Managing big data integration in the public sector*. IGI Global.

2. Anthes, G. (2015). Estonia: A model for e-government. *Communications of the ACM*, 58(6), 18-20.

3. Arkhipova, Z. V. (2016). Transformation of "electronic government" into "digital government". *Izvestiya Baikal State University*, 5, 818-824.

4. Avdeeva, I. L. (2016). Analysis of foreign experience using global technologies "Big Data". *Naukovedenie*, 6, 1-11.

5. Barabashev, A. (2016). Crisis of state governance and its influence on basic administrative paradigms of state and bureaucracy. *Public Administration Issues*, 3, 163-194.

6. Dmitrieva, N. E. S. (2014). Open public administration: Challenges and prospects in Russia. *State and Municipal Management*, 1, 127-148.

7. Dunleavy, P., & Margetts, H. (2015). *Paper presented at the 111th Annual Meeting of the American Political Science Association*. San Francisco.

8. Europe 2020: A European strategy for smart, sustainable and inclusive growth. (n.d.). Retrieved from https://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf

9. Höchtl, J., Parycek, P., & Schöllhammer, R. (2016). Big data in the policy cycle: Policy decision making in the digital era. *Journal of Organizational Computing and Electronic Commerce*, 26(1-2), 147-169.

10. Ignatova, A. (2015). Otkrytyie dannyie kak novyiy sposob vzaimodeystviya gosudarstva i obschestva [Open data as a new way of interaction between state and society]. *Istoricheskie, filosofskie, politicheskie i yuridicheskie nauki, kulturologiya i iskusstvovedenie. Voprosyi teorii i praktiki* [Historical, philosophical, political and legal sciences, cultural studies and art history. Theory and practice]. Tambov Gramota, 1, 51.

11. Janssen, M., Rana, N. P., Slade, E. L., & Dwivedi, Y. K. (2017). Trustworthiness of digital government services: Deriving a comprehensive theory through interpretive structural modelling. *Public Management Review*, 1-25.

12. Kosorukov, A. A. (2017). Digital government model: Theory and practice of modern public administration. Retrieved from https://www.abacademies.org/articles/digital-government-model-theory-and-practice-of-modern-public-administration-6945.html

13. Kosorukova, A. A. (2017). Moral choice of a man of modernity in the context of the genealogical method of F. Nietzsche. *Proceedings of the International Conference on Contemporary Education, Social Sciences and Humanities (ICCESSH 2017): Part of the series ASSEHR. Advances in Social Science, Education and Humanities Research*, 124, 1089-1092.

14. Margetts, H. (2013). Data, data everywhere: Open data versus big data in the quest for transparency. In N. Bowles & J. Hamilton (Eds.), *Transparency in politics and the media: Accountability and open government* (pp. 167-178). IB Tauris.

15. Margetts, H., & Dunleavy, P. (2013). The second wave of digital-era governance: A quasi-paradigm for government on the Web.

16. Mihajlov, S. N. (2017). Perspective model of public administration at the federal, regional and municipal levels in the context of accelerating digitalization.

17. Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data and repealing Directive 95/46. (2016). *Official Journal of the European Union (OJ)*, 59, 1-88.

18. Sidorova, A. A. (2017). E-Government: Increasing public participation in government of a state. *Public Administration (Electronic Report)*, 3, 87-103.

19. Todorut, A. V. (2018). Digital technologies and the modernization of public administration. Retrieved from https://www.researchgate.net/publication/326848442_Digital_technologies_and_the_modernization_of_public_administration

20. Ziyadin, S., Malayev, K., Fernández-Plazaola, I., Ismail, G., & Beyzhanova, A. (2020). Digital modernization of the system of public administration: Prerogatives and barriers. Retrieved from https://www.conferences.org/articles/e3sconf/pdf/2020/19/e3sconf_btses2020_05003.pdf

Internet sources

1. Electronic libraries (EL) of RUDN University and other institutions, to which university students have access on the basis of concluded agreements:

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

2.Databases and search engines:

- electronic foundation of legal and normative-technical documentation http://docs.cntd.ru/
- Yandex search engine https:// www .yandex.ru/
- Google search engine https://www.google.ru/
- Scopus abstract database http://www.elsevierscience.ru/products/scopus/

*Training toolkit for self- studies to master the course *:*

1. The set of lectures on the course «Digital technologies in Public Administration»
2. The laboratory workshop (if any). on the course «Digital technologies in Public Administration» 3. The guidelines for writing a course paper / project (if any) on the course «Digital technologies in Public Administration»

* The training toolkit for self- studies to master the course is placed on the course page in the university telecommunication training and information system under the set procedure.

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