The Federal state autonomous educational institution of higher the education «Peoples' Friendship University of Russia»

Faculty of Philology

(наименование основного учебного подразделения (ОУП)-разработчика ОП ВО)

PROGRAM OF DISCIPLINE

Software and Computing

(Name of the Discipline / Module)

Recommended for the direction of training/speciality:

42.03.02 Journalism

(Code and Name of the field of study, the direction of training/speciality)

The discipline is carried out within the framework of the main professional educational program of higher education (EP HE):

Multimedia Journalism

(Name of the educational program)

2024 г.

1. OBJECTIVE OF THE DISCIPLINE

This course will introduce students to basic computer concepts and terminology in hardware, software, networking, computer security, programming and its languages, internet of things, database, and e-commerce. It will equally explore legal, and ethical issues including privacy, intellectual property, and health concerns. Students will learn techniques to search, evaluate, validate, and cite information found online.

The main objectives are

1. To understand basic functions of computer hardware and software components including operating system functions;
2. To expose students to an understanding of law and ethical issues regarding copyright, software licenses, information privacy, intellectual property, and content filtering.
3. To equip students with skills in understanding the principles of information storage, exchange, security and privacy.

2. REQUIREMENTS TO STUDENTS ON FINISHING THE COURSE

Students are expected to master the following competencies:

Table 2.1. The list of competencies formed in the mastering of the discipline (the results of the discipline)

Code	Competence	Indicators of competence achievement (within the discipline)
GC-12.	Able to search for necessary sources of information and data, comprehend, analyze, memorize, and transfer information using digital tools and algorithms when working with data obtained from various sources to effectively use the information to solve problems; assess information, its reliability, build logical conclusions based on the incoming information and data.	GC-12.1 - Knows basic technology, software, and hardware for digital communication (including SMAAC=Social, Mobile, Apps, Analytics, and Cloud technologies) and considers information security, confidentiality, and ethical and legal requirements
		GC-12.2 - Uses a variety of digital tools to enable interactions with others to achieve goals
		GC-12.3 - Master modern technologies, software and hardware for digital communications; communicates in the digital environment (including using SMAAC=Social, Mobile, Apps, Analytics, Cloud technologies) with consideration of information security, confidentiality, ethical and legal requirements

Code	Competence	Indicators of competence achievement (within the discipline)
GPC-6.	Able to use modern technical tools and information and communication technologies in professional activity.	GPC-6.1 Selects the necessary technical equipment and software for professional activities
		GPC-6.2 Operates modern stationary and mobile digital devices at all stages of the production of a journalistic text and (or) product

3. THE DISCIPLINE (MODULE) IN THE STRUCTURE OF EP HE

The discipline "Software and Computing" belongs to the Compulsory Module of Block 1 of the curriculum. Table 1 shows preceding and subsequent subjects aimed at forming competence discipline by the matrix of competencies.

Table 3.1. The list of components of the EP HE, contributing to the achievement of the planned results of the discipline

Code	Competence	Previous discipline	Subsequent disciplines
GC-12.	Able to search for necessary sources of information and data, comprehend, analyze, memorize, and transfer information using digital tools and algorithms when working with data obtained from various sources to effectively use the information to solve problems; assess information, its reliability, build logical conclusions based on the incoming information and data.		
GPC-6.	Able to use modern technical tools and information and communication technologies in professional activity.		

4. THE SCOPE OF THE DISCIPLINE AND TYPES OF ACTIVITIES
The overall workload of the discipline is **3** credits.

Types of activities	Total hours	Semesters						
		1	2	3	4	5	6	7
Classroom activities (total)								
Lectures	34	34	x	x	-	x	x	x
Practical lessons/Seminars		-	x	x	-	x	x	x
Laboratory activities/	-	-	-	-	-	-	-	-
Control	18	16	-	-	-	-	-	-

Independent work (total)	**56**	**56**					
Overall workload hours	**108**	**108**					
Credits	**3**	**3**					

5. CONTENT OF THE DISCIPLINE

Table 5.1 Content of the discipline (module) by type of activity

Name of the Unit	Content of the Units (topics)	Type of activity
Introduction	- Concepts, Glossary, Syllabus,	Lecture
Introduction to Computer(Computing)	- Computer Concepts(Application, programming languages,) - Strengths and weakness of computers - Information Technology, the Internet, and You - What Do Computer Scientists Do?	Lecture
The operating Systems	- Definitions and types; - The System Unit, - Basic Application Software Windows - Operating System; - Word, Excel, and PPT	Lecture
The Internet	- The Internet, The Web, and Electronic Commerce - Artificial Intelligence	Lecture
File Management	- Secondary Storage - Databases - Computer Hardware	
Computing and law	- Privacy, Security, and Ethics	Lecture
Programming	- Programing Languages, - types of programming and languages, - Introduction to Code; - Core Elements of a Program	Lecture

6. MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE

The discipline is implemented using e-learning and distance learning technologies

Table 6.1. Material and technical support of the discipline

Type of classroom	Classroom equipment	Specialized educational/laboratory equipment, software and materials for the mastering the discipline (if necessary)
Digital Classroom	Computer, TV VCR and a transparency projector. CD players and DVD players	
Lecture room	Computer, internet, TV VCR and a transparency projector	
Home for independent work	Computer, internet,	
Library for independent work	Computer, internet	

** The classroom for students' independent work **MUST be indicated**!*

7. EDUCATIONAL AND METHODICAL AND INFORMATIONAL SUPPORT OF THE DISCIPLINE

Main readings
1. Guttag, J. V. (2013). *Introduction to computation and programming using Python*. Mit Press.
2. Sanghera, K. (2007). *Fundamentals of Computing*. Kendall/Hunt Publishing Co.

Other recommended readings
1. Guttag, J. V. (2016). *Introduction to computation and programming using Python: With application to understanding data*. MIT press.
2. Sommerville, I. (2020). *Engineering software products* (Vol. 355). London: Pearson.
3. Steinberg, G., & Sanghera, K. (2007). *Introduction to computer information systems*. Kendall/Hunt Publishing Co...

Web-sites and online resources
1. ЭБС РУДН и сторонние ЭБС, к которым студенты университета имеют доступ на основании заключенных договоров:
- htpp://www.rad.pfu.edu.ru/
- www.libfl.ru
- www.portalus.ru
- www.project.phil.pu.ru
- www.lib.fl.ru
- www.gutenberg.net
- www.ipl.org
- www. the European library.org; www.epoch-net.org
- http://gabro.ge/biblio/0707/3066/filosof.historic.ru/books/item/f00/s00/z00358/st000/htm/

2. Databases and search systems:
− web search engine google.com
− online encyclopedia wikipedia.org
− news aggregation website drudgereport.com
− Googlescholar.com

Teaching materials for students' independent work while mastering the discipline/module*:
1. A course of lectures on the discipline.
2. Practical assignments and their brief contents;
3. Questions for self-check, and test assignments.
   * - all educational and methodical materials for students' independent work are published in the current order on the page of the discipline in TUIS!

8. GRADING MATERIALS AND GRADING-RATING SYSTEM FOR ASSESSING THE LEVEL OF COMPETENCE FORMED IN THE DISCIPLINE

The grading materials and grading-rating system* for assessing the level of competence (part of competencies) for the discipline are presented in the Appendix to this Working program of the discipline.
* - are formed based on the requirements of the corresponding local normative act of RUDN University.