Description of an Optional Academic Component

Academic Component	Optional Academic Component **«The Use of Neural Networks in Information Analytics»**
Level of HE	Education Level Bachelor
Title of specialty / educational and professional program	291 International Relations, Public Communications and Regional Studies / International Information and Public Communication.
Form of education	Full-time
Year, semester, duration	2nd year, 3 semester, 5 credits
Semester control	Credit
Number of hours (total: including lectures / practical)	150 hours: lectures – 10 hours, practical – 20 hours.
Language of instruction	English
Department that provides teaching the academic component	International Communications and Political Analysis Department
Instructor	Senior Lecturer at the International Communications and Political Analysis Department **Shuliak Nazarii Oleksandrovych**
	Brief Description
Requirements for starting studies	basic knowledge of information and analytical activities.
What will be studied	using neural networks in information analysis focuses on learning the basics of neural networks, their applications in information analysis, and an overview of the basics, including architecture, types, and applications. Covering the process of supervised learning, including training a neural network using labeled data, and how to apply it to information analysis problems.
Why it is interesting / should be studied?	will provide an understanding of Natural Language Processing (NLP) specifically focusing on NLP techniques including text processing, sentiment analysis, named object recognition, assisting in image and video analysis including object detection and recognition, face recognition and video analytics.
What you can learn (results)	practical skills in implementing neural networks, including how to choose the right tools and technologies, how to design and train a neural network, and how to evaluate its performance. Practical applications of neural networks in real-world information analysis scenarios, including cyber security, fraud detection, and social network analytics.

How to use the acquired knowledge and skills (competencies)	will provide participants with the knowledge and skills necessary to apply neural networks to a wide range of information analysis tasks, enabling new knowledge and more informed decision-making based on large volumes of data.