# "NON-CLASSICAL LOGICS"

(name of the discipline)

#### **OUTLINE**

## TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

**Specialty 1-40 80 02** "System Analysis, Management and Information Processing" (by branches) Professionalization: Information Control Systems

II level of higher education (master's degree)

	Form of higher education
	Full-time
Course	1
Semester	2
Lectures, hours	26
Laboratory classes, hours	36
Exam, Semester	1
Classroom hours in the educational discipline	62
Independent work, hours	46
Total hours of the discipline / credit units	108/3,0

# 1 Summary of the content of the discipline

Deep knowledge in the field of formal logic, in particular the systems of non-classical logic (fuzzy logic, modal logic, temporal logic, etc.) in application to the problem of knowledge representation; acquisition of modern tools of formalization of reasoning and automatic building of conclusion.

# 2 Learning objectives

As a result of studying the discipline, the student should

#### know:

- basic facts about the calculus of non-classical logics;
- Semantics of non-classical logics;
- algorithms of common sense checking;

#### be able to:

- construct formal inference in a given calculus;
- verify the truth of formulas in models;
- use the language of non-classical logics to formalize a given set of facts and rules;

#### know:

- skills in working with modern systems of automated inference construction in calculus of nonclassical logics.

## 3. Competencies to be formed

PC-3 Analyze complex cause-effect relationships in decision-making in systems based on non-classical logics.

## 4 Requirements and forms of current and intermediate attestation.

CR, TA, exam.