	The syllabus of the discipline **«BASICS OF PROGRAMMING»**
Level of higher education	First (Bachelor's Degree)
Discipline status	Educational discipline of the mandatory component from the *Professional Disciplines* list
Year of study	1 (first)
Semester	1 (first)
Scope of discipline, ECTS credits / total number of hours	9.0 credits/270 hours
Language	English
What will be studied (subject of study)	Basics of Programming with the help of C/C++ programming language. The **objectives** of the discipline are: - study of structured programming approach in program development; - design of programs and software systems using the structured programming approach; - application of the structured programming approach to solving applied problems; - ability to apply structured programming methodology in applied programs.
What you can learn (learning outcomes)	As a result of studying the discipline, the student must acquire the following **competencies**: I. General competencies: - ability to abstract thinking, analysis, and synthesis; - ability to apply knowledge in practical situations; - ability to learn and master a modern understanding of software engineering; II. Special (professional) competencies: - ability to identify software requirements; - ability to participate in software design; - ability to develop modules, and components of software systems; - ability to apply fundamental and interdisciplinary knowledge to solve software engineering problems successfully; - ability to reasonably choose and create tools for software development; - ability to algorithmic and logical thinking.

How to use the acquired knowledge and skills	- use structured programming approach in program development; - design of programs and software systems using the structured programming approach; - apply the structured programming approach to solving applied problems; - apply structured programming methodology in applied programs; - write C/C++ code while implementing different applied tasks.
Educational logistics	The content of the discipline: Training units form the teaching material of the discipline, which consists of two training units, namely, *Unit 1 Basics of the Structured Programming with C/C++,* and *Unit 2 Advanced Topics of The Structured Programming with C/C++* Types of classes: lectures, practical work Teaching methods: multimedia presentations; writing programs in C and C++ programming languages. Form of Study: full-time
Prerequisites	Based on mathematics and informatics.
Details	The *Basics of Programming* course is the basis for the following academic disciplines: *Object-Oriented Programming, Operational Systems*, *Algorithms and Data Structures*, and others.
Semester control, examination methods	Exam
Department	Software Engineering Dpt.
Faculty	Faculty of Cybersecurity, Computer and Software Engineering
Teacher (s)	SEREBRIAKOVA S.V. Assoc. Prof., PhD http://orcid.org/0000-0003-4261-0731 E-mail: svitlana.serebriakova@npp.nau.edu.ua Working Auditorium: 3-303