SYLLABUS OF THE ACADEMIC DISCIPLINE
«Corporate information systems platforms»

Educational program component– *mandatory* (*8 cr.*)

Educational and professional program	Information Technology and Project Management
Specialty	122 computer science
Discipline	12 information technology
Level of higher education	first (bachelor's)
Language of instruction	English
Teacher(s) profile	Gorbatenko M.Yu., Associate Professor *teacher profile*
Contact phone number	+38 (0372) 584825
Email:	m.gorbatenko@chnu.edu.ua
Course page in Moodle	-
Consultations	in-person (according to the consultation schedule), online (by prior arrangement).

SUMMARY OF THE ACADEMIC DISCIPLINE

The knowledge that the student should gain as a result of studying the course will play an important role in building applications that are used in enterprises.

The purpose of the academic discipline:formation of skills in design, development, installation of applications, use of modern programming methods and modern development environments. Advantages of the academic discipline:
- studying modern standards and approaches to development;
- consideration of the development of relevant types of software applications;
- applying effective practices for writing fast, stable, and secure applications;
- correct approaches when working in standard and emergency situations;
- effective principles of organizing the interaction of dependencies within the application and correct work with external dependencies.

EDUCATIONAL CONTENT OF THE EDUCATIONAL COMPONENT

6TH SEMESTER

CONTENT MODULE 1. C# LANGUAGE	
Topic 1	Introduction. Overview of the .Net ecosystem. C# basics.
Topic 2	Basic constructs, exceptions, functions, testing, and debugging.
Topic 3	Creating your own types and standards.
Topic 4	Implementation of interfaces, delegates and events.

CONTENT MODULE 2. .NET AND RUNTIME ENVIRONMENT (RUNTIME)	
Topic 5	Efficient work with resources, internationalization, regular expressions, serialization.
Topic 6	LINQ.
Topic 7	Tasks and parallel programming.
Topic 8	Types of applications and their use in real life.

7TH SEMESTER

CONTENT MODULE 1. DATA AND WEB APPLICATIONS	
Topic 1	ADO.NET.
Topic 2	Entity Framework Core.
Topic 3	ASP.NET MVC and Razor pages.
Topic 4	ASP.NET Web API.
CONTENT MODULE 2. SERVICES AND CLIENT SIDE.	
Topic 5	Blazor.
Topic 6	Use of specialized services.
Topic 7	MAUI and data protection in applications.
Topic 8	Typescript and interaction with front-end applications.
Topic 9	Typical architectures, deployment methods, and verification.

FORMS, METHODS AND EDUCATIONAL TECHNOLOGIES OF TEACHING

Both classical teaching methods, such as lectures and laboratory classes, and Google Classroom, which provides materials for familiarization and laboratory tasks with the ability to upload the results obtained during independent work and work on laboratory work, are used, and preference is given to the use of Google Forms for conducting a final assessment if such an opportunity is available. Google Meet is used in the case of a blended or remote form of the educational process.

FORMS AND METHODS OF CONTROL AND EVALUATION

*Current control:*defense of laboratory work, creation of reports.
Final control – test (6th semester) and exam (7th semester).

CRITERIA FOR ASSESSING LEARNING OUTCOMES

The assessment of program learning outcomes of education seekers is carried out according to the scale of the European Credit Transfer System (ECTS).

The criterion for successful assessment is the achievement by the higher education seeker of minimum threshold levels (scores) for each planned learning outcome.

ACADEMIC INTEGRITY POLICY

Compliance with the policy on academic integrity by participants in the educational process when studying an academic discipline is regulated by the following documents:
✓ "Code of Ethics of Yuriy Fedkovych Chernivtsi National

University"https://www.chnu.edu.ua/media/jxdbs0zb/ethychnyi-kodeks-chernivets-koho-natsionalnoho-universytetu.pdf

- ✓ "Regulations on the detection and prevention of academic plagiarism at Yuriy Fedkovych Chernivtsi National University"https://www.chnu.edu.ua/media/n5nbzwgb/polozhennia-chnu-pro-plahiat-2023plusdodatky-31102023.pdf

INFORMATION RESOURCES

1. https://dotnet.microsoft.com/en-us/apps/machinelearning-ai/ml-dotnet
2. https://learn.microsoft.com/en-us/dotnet/machine-learning/how-does-mldotnet-work
3. https://github.com/dotnet/machinelearning