



MINISTRY OF HEALTH OF UKRAINE
NATIONAL UNIVERSITY OF PHARMACY
Department of Fundamental and Social-humanitarian Sciences



Information Technology in Pharmacy

“Information technology is just a tool”

Presentation of the Elective Educational Component

**Bill Gates,
the co-founder of Microsoft Corporation**



for foreign students

educational program “Pharmacy”, specialty 226 Pharmacy, industrial pharmacy

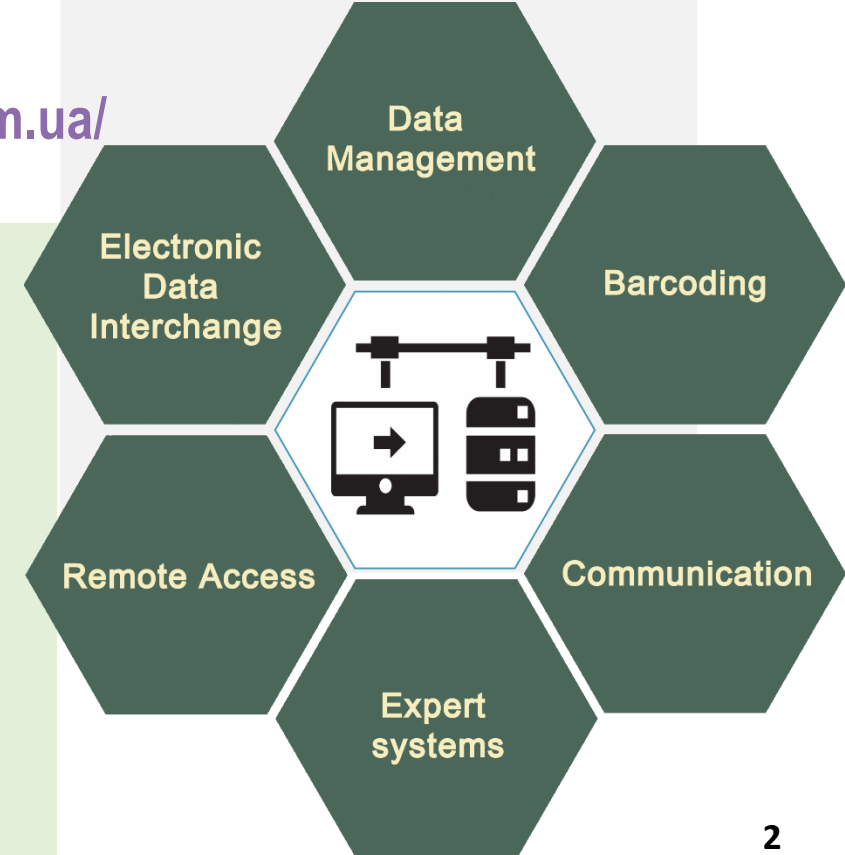


Modern society is an information society. That is why today, an important element of the pharmaceutical industry is information support, which consists of collecting and processing information needed to make informed management resolutions.



<https://www.pharmencyclopedia.com.ua/>

“... in all pharmaceutical companies, it is necessary to actively implement such information technologies as data management, electronic data interchange, barcoding, artificial intelligence — expert systems, remote access and communication”



DOCUMENT AUTOMATION

The introduction of document automation systems (word processors, etc.) leads to the concept of "electronic document" and "paperless technology".



This concept works with an environment in which the use of paper is eliminated or greatly reduced. This is done by converting documents and other papers into digital form.

“Paperless technology” (or “paper-free technology”) can

- ✓ save money,
- ✓ boost productivity,
- ✓ save space,
- ✓ make documentation and information sharing easier,
- ✓ keep personal information more secure,
- ✓ help the environment.



COMMUNICATION

Computer communication — is the exchange of information between subjects through verbal and nonverbal communication systems using communication computer channels.



The advantages of communicating by computer are

- ✓ speed,
- ✓ the ability to communicate regardless of distance,
- ✓ the ability to communicate to an unlimited number of people,
- ✓ low cost,
- ✓ the ease of exchanging documents etc. (voice messages, video, text, pictures, graphics, etc.)

COMPUTERIZATION OF CALCULATIONS



Today, economic, financial, technical and statistical calculations are impossible without a computer and proper software, as well as without the special methods of their implementation.



Computers can perform calculations much faster and are useful for much more than just arithmetic. Think of it as comparing a newborn child to a university lecturer.

Advantages:

- ✓ High Speed,
- ✓ Accuracy,
- ✓ Reliability.



MANAGEMENT OF PHARMACEUTICAL PRODUCTION TECHNOLOGY

In the pharmaceutical industry, computers are widely used at certain stages of production, in particular, in product quality control, as well as for process control.



The use of computers in pharmaceutical production gives ability to:

- ✓ release staff to solve other tasks;
- ✓ increase the volume and quality of products;
- ✓ avoid technological errors;
- ✓ improve the quality of production and of employees' work




THEMES:


- Topic 1.** Information and software tools to create pharmaceutical documentation and to use it in electronic document management
- Topic 2.** Using spreadsheets logical functions to solve professional tasks
- Topic 3.** Using spreadsheet database functions to solve professional tasks
- Topic 4.** Tools for sorting and searching data in spreadsheets. Model of pharmacy warehouse and accounting of inventory
- Topic 5.** Functions for calculating consolidated indicators. Pivot Tables
- Topic 6.** Basic methods of statistical analysis. Computer tools for descriptive statistics and correlation analysis
- Topic 7.** Information technology of functional approximation and statistical data trends. Prediction of medical and biological processes based on functional approximation
- Topic 8.** Design and realization of the pharmaceutical database "Drugstore" by means of a database management system




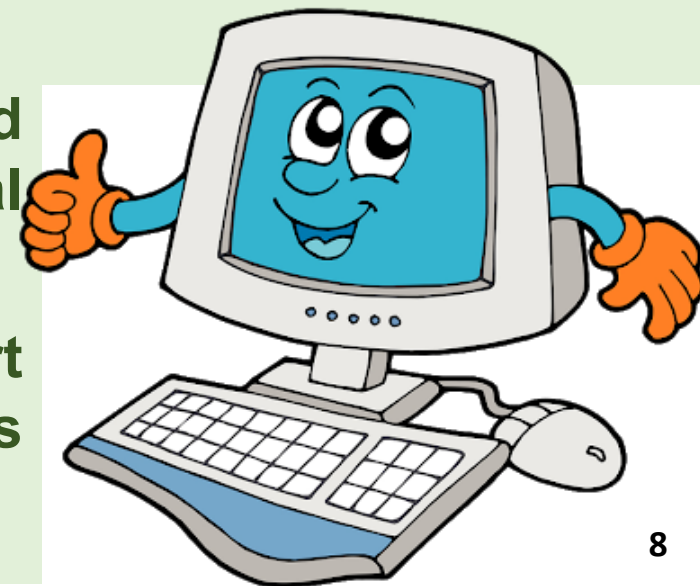
After studying "IT in pharmacy" you will be able to:



-  use computers and information technology in the daily professional activities;
-  work with peripheral devices, control the input and output of information;
-  create, edit and print professional texts, compile reports on the performed work which include various types of graphics;

 use information resources to search, process and present medical-biological and pharmaceutical information;

 use office programs tools to perform calculations, sort and group data, visualize information, to process statistical information in pharmacy



“Specialists in information technology are the new lawyers. And this state of being creates a new kind of personality”

Charles John "Chuck" Klosterman

We wish you success!

☑ It's my choice!

