**Topic 9. Digital Security**:   
Security Basics. Password Security. Hardware Security. Malware.   
Social Engineering. Encryption.

**1) Unauthorized (Несанкционированное)**Use: **Encryption(Шифрование)**. Authentication.

2) Unauthorized Use: Strong Passwords. Password Managers.

3) Malware: Malware Threats. Computer Viruses.  
 4) Malware: Computer Worms. Trojans. Antivirus Software.

5) Online Intrusions: **Intrusion(вторжение)** Threats.

6) Online Intrusions: Firewalls.

7) Interception: **Interception(перехват)** Basics. Evil Twins. Address **Spoofing**(подмена/подделка).

8)Social Engineering: Social Engineering Basics. Spam. Phishing.

9)  Social Engineering: Pharming. Rogue Antivirus. PUAs.

**1)**

**Unauthorized use** - access to information in violation(нарушение) of the official powers of the employee, the use of information closed to public access by persons who do not have **permission(разрешение/позволение)** to access this information.

**Encryption** is the **reversible(обратимый)** transformation of information in order to hide from unauthorized persons, while providing, at the same time, authorized users with access to it.

**Authentication** - truth check procedure, for example: user authentication by comparing the entered password with the password stored in the login database;  
2)

**A strong password** is a password that cannot be guessed or cracked by   
*brute force(грубая сила/перебором).***Password managers** help you create strong, unique passwords when you sign up for websites and store them on their servers. To enter a resource or an application, you can copy **the desired(желанный/нужный)** password from the manager and **paste(вставить)** it into **the appropriate (подходящее)** field.  
  
3)  
***Malware*** is a software that ***gathers(собирает)*** data and forwards it to hackers.  
  
**A computer virus** is a type of **malicious(злонамеренный)** programs that can **infiltrate(проникнуть)** the code of other programs, system memory areas,   
**boot sectors(загрузочный сектор)** and distribute their copies over various communication channels. The main purpose of a virus is to spread it.  
4)  
**A computer worm** is a program with a virus code that attacks computers on a network and spreads through it. An active network worm can **disable(снижает/делает неспособным)** the productivity of the   
**victim's device(устройство жертвы),** delete files, or disable the power of the virus.  
  
**A Trojan** (trojan virus or trojan) is a type of malware that **masquerades(маскируется)** as **legitimate(легитимное)** software. It is often used by cybercriminals to steal **identity(личные данные),**   
**track(отслеживать)** users, and gain unauthorized access to systems.  
  
**Antivirus** is a **means(средство)** of protecting equipment with software from **malicious(злонамеренный)** code (viruses). Everything that an antivirus does  
 **is aimed at(направлено на)** detecting viruses that modify files in order to spread and **disrupt(нарушать)** the regular operation of the system and applications.  
5)  
**Intrusion(вторжение)** Threats:  
an attack when a hacker **intercepts(перехватывает)** the communication channel between external networks and gains access to all available information. Gaining access to that level of access can change the information it needs to achieve its goals.

*6)****Firewall.*** It’s an element of a computer network that controls and filters what is happening through the traffic flow in accordance with specified conditions.

7)  
**Evil Twin:**

the hacker creates a copy of the wireless **access point** located within the user's **reception radius(радиус приема)**, **thereby**(тем самым) replacing the original access point with a double to which the user connects, opening access to the ability to access confidential information.  
  
**Adress spoofing** is a type of hacker attack that collects someone else's source IP address in order to **deceive**(обмануть) the security system.  
  
8)  
**Social engineering** is the psychological manipulation of people in order to perform important actions or **disclose(разглашение)**confidential information.

**Spam** - mass **mailing (рассылка**)of letters of   
an **advertising nature(рекламного характера)** to persons who did not express a **desire(желание)** to receive it. May contain malware.

**Phishing** is a type of cybercrime in which criminals **pose(изображают себя)** as a trusted source on the Internet in order to **trick the victim** **(обмануть жертву)**into giving them personal information (for example, username, password, bank card number

9)

**Pharming** consists in(заключается в) changing the DNS addresses so that the pages that the user visits are not the original pages of for example banks, but it is phishing pages. During farming, the user hasn't practically(прАктыклы) reasons for distrust when entering personal information because No one sent letters, no one asked to visit the site. The user himself, at his own request(требованию), decided to go to the bank's website. Only not on the original, but on a fake site.

**DNS (Domain Name System)** is designed to match the address of the site that the user typed in the browser, the real IP address of the server on which this site is located.

**Rogue(рОуг/изгой/жулик) antivirus** is, **at first sight,(взгляд/достопримечательность)** a free legItimate program that is designed to scan(э) for viruses on your computer, but in fact, this programat a particular moment will display a message that there is a virus on your computer (even if it is not) and will ask you to get rid of it to **purchase(приобрести/покупка) (пЭрчэс)a licensed (лАйсэнсд)**version of the program, for this you need to send money via SMS to scammers(Э). As a result, you can lose money and get a **Trojan(трОджэн)** on your computer.  
  
**A potentially unwanted application(PUA)** is not as dangerous as a virus or trojan, but it is a **nuisance(ньЮсэнс но доставляет неудобства).** examples of such programs are **alternative(алтЭрнатыв)** browsers that you haven't downloaded. Social engineers, knowing that people speed up the installation process and don't like to read the small text, put in an option to download PUA, to remove this program use malwarebytes, it's an antivirus program.