### **CRYPTOLOGY**

|  |  |
| --- | --- |
| **Тип дисципліни** | Elective |
| **Рівень вищої освіти** | First (Bachelor) |
| **Мова викладання** | English |
| **Кількість кредитів ЄКТС** | 8,0 |
| **Форми здобуття освіти** | Full-time |

**Результати навчання.** A student who has successfully completed the discipline must: understand and skillfully use the terms and basic concepts of cryptology; analyze the differences between cryptosystems; understand the principles of building different cryptosystems.

**Зміст навчальної дисципліни.** Basic concepts of cryptology. Cryptography. Classification of cryptosystems. Symmetric and asymmetric cryptosystems, principles of construction. Cryptosystems with a secret key. Public key cryptosystems. Cryptographic protocols.

**Запланована навчальна діяльність**: number of classroom hours - not less than 1/3 of the total number of hours planned for the study of the discipline.

**Методи навчання:** lectures (using methods of problem-based learning and visualization); laboratory and practical classes (using trainings, master classes, workshops), independent work (individual tasks).

**Форми оцінювання результатів навчання**: oral examination, defense of laboratory and practical work, test control.

**Форма семестрового контролю:** credit.

**Навчальні ресурси:**

1. Modular learning environment MOODLE. Access to the resource: <https://msn.khmnu.edu.ua>
2. Electronic library of the university. Access to the resource: <http://lib.khmnu.edu.ua/asp/php_f/p1age_lib.php>

**Викладач**: PhD M. Kapustian