**1. Module: High molecular connections**

**2. Module code:** ХЕ\_6\_3.1.30\_3

**3. Module type:** selective

**4. Term:** 7

 **5. Module volume:** general lessons quantity – 90 (ECTS credits – 3), auditorium lessons – 30 hours (lectures – 14, laboratory classes – 16)

**6. Lecturer:** Valyuk Victoriya Fedorivna – candidate of chemical sciences, assistant professor

**7. Training results:**

During module training student **should:**

**know**: kinetics, catalysis, polymerization reaction mechanism, polycondensation, polyjoing; polymers destructions and sewings, their stabilization processes and other chemical transformations

**To be able:** to set interconnection between chemical structure and synthesis conditions with a structure and properties of high molecular connections; to investigate polymers physical transformations and their solutions, and also structure, physical, physical and mechanical properties of polymers, superficial, interphase and other phenomena which take place in the polymeric systems and composites.

**8. Training methods:** auditorium lessons

**9. Compulsory previous and simultaneous modules:** General and inorganic chemistry", "Physics", " Physcolloid chemistry", "Organic chemistry"," Analytical chemistry".

 **10. Module content:** High molecular connections chemistry basic concepts. Radical polymerization. Ionic polymerization. Cation polymerization. Anionic polymerization. Polycondensatio. Polymers chemical transformations. Physical and chemical properties of high molecular connections.

**11. Recommended literature:**

1. Ластухін Ю.О., Воронов С.А. Органічна хімія –Л., 2000.- 627 с.
2. Боєчко Ф. Ф., Найдан В.М., Захарик Д. М. Органічна хімія. – К.:”Вища школа”, 1986. - 312с.
3. Домбровський А.В., Найдан В.М. Органічна хімія: Навч. посібник. –К.: Вища шк., 1992. - 534с.

**12. Training forms and methods:** lectures, laboratory classes,individual training research work, individual work

**13. Evaluative methods and criteria:**

* Current control (70 %): oral questioning, individual work
* Total control (30 %, credit): testing

**14. Language:** Ukrainian