

مخرجات التعلم

❖ Program Intended Learning Outcomes (PILOs):

❖ PILOs of Knowledge and Understanding Skills:

- A1.** Identify the basis of fundamental knowledge including principles of biomedical, pharmaceuticals, social, behavioral and other basic sciences related to the pharmacy profession.
- A2.** Demonstrate the essential knowledge about physicochemical and pharmacokinetic properties of medicines and their influence on compounding, evaluation, analysis, route of administration, and dosage regimen.
- A3.** Describe the analytical methods, principles, design, development, and validation of pharmaceutical products.
- A4.** Identify broad knowledge about the mechanism of action, effectiveness, use, safety, side effects, and interactions of therapeutic agents as well as the alternative and complementary therapies.
- A5.** Identify the types of poisonous substances, sources, mechanisms of toxicity, analysis, clinical pictures, and management.
- A6.** Describe the pharmacist's role in health care; dispensing, designing, implementing, monitoring, evaluation, and adjustment of medication therapy plans that are patient-specific and evidence-based to achieve maximum clinical effectiveness.

❖ PILOs of Intellectual Skills:

- B1.** Collect, interpret and assess relevant pharmaceutical and biomedical sciences to construct the pharmacophores of the structure and their effect on the stability, pharmacokinetic and pharmacodynamics profile of the drug.
- B2.** Classify the synthetic and natural drugs according to their mechanism of action, systemic effect, therapeutic uses, contraindication and toxicity.

- B3.** Integrate the physicochemical properties of medicines to compounding, preparation, and analysis of parenteral nutrition, I.V admixtures, and small-batch pharmaceutical preparation.
- B4.** Plan a modern system for administration of medical foundations and merge the ethics to business in the drug marketing
- B5.** Develop and design a suitable method for extraction, isolation, purification, identification, and Standardization of active substances from various sources.
- B6.** Formulate an appropriate pharmacotherapy care plan and monitoring strategies to solve practice problems and improve patient safety and efficacy
- B7.** Use appropriate research methods to solve practice problems.

❖ PILOs of Professional Skills and Practices:

- C1.** Deal safely and effectively with the chemical, biological, and pharmaceutical materials taking into account their physical and chemical properties including any specific hazards associated with their use, distribute, and storage.
- C2.** Operate different pharmaceutical equipments and instruments and use emerging technologies in pre-formulation, formulation, packaging, storage and analysis of pharmaceutical products according to Good Laboratory Practice (GLP), Good Storage Practice (GSP) and cGMP guidelines.
- C3.** Screen drug from the different sources, bioassay, and carry out pharmacological and biopharmaceutical experiments.
- C4.** Extract, isolate, purify, identify, standardize, formulate natural products and assure their rational use.
- C5.** Implement patient-oriented pharmaceutical care legally and ethically in a variety of patient care settings in collaboration with patients and other health care professionals according to professional standards, appropriate therapeutic guidelines, and research outcomes.

C6. Compound/prepare extemporaneous, cytotoxic, I.V admixture, parenteral nutrition, and small-batch pharmaceutical preparation taking into account the physicochemical properties of drug structures.

C7. Apply administrative and pharmaeconomic rules in pharmacy and ethically use marketing skills for promoting the pharmaceutical and cosmetic products.

❖ PILOs of General and Transferable Skills:

D1. Display ethically and legally leadership, time management, critical thinking, problem-solving, communication, team-work, independence, creativity, entrepreneurial, delegation, and organizational skills.

D2. Take responsibility for adaptation to change needs in pharmacy practice.

D3. Develop life-long learning, in particular an awareness of the need for continuing education, research, scholarship, and professionalism in the field of pharmaceutical practice