

### Module I

- History and Development of Saidla, with special reference to the contribution of pioneers of Unani system in different periods.
- General introduction of pharmacy and pharmaceuticals
- Interactive teaching/Integrated teaching.
- Substitutes of raw drugs - Theory and Practices
- Principles of Pharmaceutical Processing
- Information Resources in Unani Pharmacy/Pharmaceutical data base/TKDL/Pharmacopeias and Formularies/Important Websites/Search Engines/Electronic publications.
- Scope of allied sciences in the teaching and training of Unani Pharmacy
- Evaluation of terminologies used in Unani pharmacy and pharmaceuticals in the light of descriptions of Unani and modern sciences

### Module II

1. Laboratory analysis of compound formulations./ Standardization and quality control of Compound formulations
2. Determination of Shelf life and the date of Expiry of Unani drugs.
3. Dosages Forms used in Unani Medicine - Need and scope of modification in the existing dosage forms in order to improve the drug delivery system
4. Need for evaluation of safety and efficacy of Unani compound formulations.
5. Toxicology of heavy metals-Evaluation in Unani Context and modern concept/ Evaluation of Unani Drugs and formulations for the assessment of heavy metals - Methods and Implication
6. Tadbeer-e-Advia (Detoxification) and its Scientific Validation.

### Module III

- Concepts of Kushta (Calx), its preparation and therapeutic values.
- Use of minerals and their scientific basis, identification, care during preparation of the drug, possible toxicity, metabolism etc., side effects due to the long term use. Processing, standardization and scientific evaluation of minerals used in Unani medicine for their therapeutic potential.
- Laboratory Analysis of Kushtas and the development of Methods and Techniques for its Standardization.
- Use of Geological Techniques as a tool of Standardization of Hajariyat (precious stones) used in Unani medicine.
- Modern techniques for preparation and testing of Kushta

### Module IV

1. GMP, GLP and Drug & Cosmetic Act /Quality Control and Assurance
2. Development of Standard Operational Procedures (SOP) for Unani drugs/Toxicological studies and microbial load of heavy Metals.
3. Establishment of a Research and Development (R & D) wing in Unani Pharmaceutical Industry.
4. Research in Unani Pharmacy in the light of WHO guidelines
5. Manufacturing and sale of Unani drugs, Licensing Authority/application for licensing to manufacturing Unani drugs, Loan licensing, certificate of renewal, certificate of awards of GMP of Unani Drugs. Restartion/Licencing, Manufacturing and Sale of Unani Formulation

### Module V

- Preparation of Research Project/Report writing etc.
- How to write a Research article/paper on International standards?/ Peer reviewing/Impact factor of a Research Journal/Thesis and Dissertation writing/Preparation of Monograph etc.
- Medical Statistics and its application in Unani Pharmacy
- Better presentation of Unani Medicaments, using excipients/Packaging Material etc
- Production and marketing management of Unani Drugs.

- Comprehensive Information required for establishment of a Modern Unani manufacturing unit for the knowledge of students of Unani System.
- Comparative study of manufacturing of Unani Medicine by classical and technically improved methods.

#### **Module VI**

- Use and application of 'Computer Technology' in teaching and Research in (Unani Pharmacy)
- Use of Novel Tools of Nano-Technology for improvement of efficacy of Unani Drugs.
- Pharmaceutical Testing/Instrumental Methods of Analysis
- Demonstration of Modern Instruments/Machinery used in Pharmaceutical procedures/Industrial Pharmacy
- Field visit to a Pharmacacentical house. One Institution conducting experimental work on Unani Drugs

#### **Module VII**

- Conventional methods of extraction of drug and their modernization.
- Comparative study of manufacturing of medicines by classical and current modern methods.
- Improvement in techniques of manufacturing process (equipment and apparatus) without change in fundamental approach of unique dosage form.
- Recent Advances in Pharmacy with special reference to Standardization and quality control

