Lecturer Title:

1- General Introduction: The Scope of Pharmacognosy, definitions and basic principles.
2- Drugs from natural sources, crud drugs, official and non-official drugs.
3- Classification of natural products.
4- Plant nomenclature and taxonomy.
5- Production of crude drugs: Cultivation, collection, drying and storage.
6- Deterioration of crude natural products.
7- Chemistry of natural drug products.
8- Quality control: Evaluation of natural products; macroscopical evaluation; physical evaluation; chemical evaluation; biological evaluation; spectroscopical evaluation.
9- Phytochemical investigation of herbal products: Extraction of the plant material; Separation and isolation of constituents; characterization of the isolated compounds.
10- Traditional plant medicines as a source of new drugs. Bioassay-guided fractionation
11- Tissue culture of medicinal plant: Introduction and history; laboratory of the plant tissue culture; aseptic techniques Application of the plant tissue culture; environmental and biological control; plant growth regulators.
12- Separation technique: Introduction; Mechanisms of separation and classification based on the type of technique; paper chromatography; Thin layer chromatography; Ion-exchange chromatography; Gel filtration chromatography; Column

chromatography; Gas chromatography; HPLC; Electrophoresis; Affinity chromatography