منهاج الصيدلة السريرية / الدكتوراه

	Subject Name	Chapters	References
1	Advanced Therapeutics III	1-Hypertension, 2-Heart Failure, 3-Stable ischemic Heart Disease,4- Acute Coronary Syndromes, 5-Stroke, 6-Dyslipidemias, 7-Schizophrenia, 8-Depressive Disorder, 9-Bipolar Disorder, 10-substance related disorders, 11-Lymphomas, 12-Anemias, 13-Electrolyte Homeostasis, 14-Acid—Base disorders, 15-Chronic Kidney Disease	Pharmacotherapy Handbook. By Joseph T. DiPiro. Last edition
2	Advanced Therapeutics IV	1-Breast Cancer, 2-Colorectal Cancer, 3-Prostate Cancer, 4-Respiratory Tract Infections(lower), 5-Respiratory Tract Infections(Upper), 6-Tuberculosis, 7-Gastrointestinal Infections, 8-Hormone Therapy, 9-Peptic Ulcer Disease, 10-Inflammatory Bowel Disease, 11-Portal Hypertension and Cirrhosis, 12-Viral Hepatitis, 13-Adrenal Gland Disorders, 14-Psoriasis, 15-Benign Prostatic Hyperplasia, 16-Pancreatitis.	Pharmacotherapy Handbook. By Joseph T. DiPiro. Last edition
3	Advanced Clinical Pharmacokinetics II	 1-Clinical Pharmacokinetic and pharmacodynamic Concepts. 2 Clinical Pharmacokinetic Equations and Calculations. 3-Drug Dosing in Special Populations. 4-The Aminoglycoside Antibiotics 5- Vancomycin. 6-Phenytoin & fosphenytoin. 7-Valproic acid. 	Larry A. Bauer. Applied clinical pharmacokinetics. Last edition

منهاج الصيدلة السريرية / الدكتوراه

4	Adv. Pharmaceutical Biotechnology	Applications Of Recombinant DNA Techniques In Medicine, Techniques To Recognize Normal Or Pathologic Genetic Variations, Principles Of Genetics, DNA Polymorphism, Recombinant DNA Techniques, Techniques For Amplifying DNA Sequences Use Of Recombinant DNA Techniques For Diagnosis Of Disease use of recombinant DNA techniques for the prevention and treatment of disease Gene Therapy ,CRISPER	Mark's Basic Medical Biochemistry 10 th edition2015 -Lehninger Principles of Biochemistry, <i>David Nelson</i> 8 th edition 2021
5	Advanced Pharmacology III	 Pharmacology and Toxicology Clinical laboratory scieneces Pharmaceutics Pharmaceutical chemistry Pharmacognosy and medicinal plants Clinical pharmacy 	Cannabinnoid receptors as therapeutic targets Renin- angiotensin system as target for drug treatment of different diseases. Novel target for anti-inflammatory agents. New drugs for treatment of diabetes and metabolic syndrome. Pharmacological bases of antiaging drugs. Gene therapy, theories, animal experiments and clinical applications.
6	Advanced Clinical Biochemistry III	Diseases of Genetic origin , Oxidative stress related disorders, Advanced glycation end	-Clinical Biochemistry and Metabolic Medicine by Martin A. Crook;

منهاج الصيدلة السريرية / الدكتوراه

		products & DM, Dyslipidemia, Biochemistry of trace elements, Clinical enzymology, Endocrine system and lab diagnosis techniques, Hypothalamus and pituitary glands with their diseases, Adrenal gland, Thyroid gland, Male and female reproductive glands & related diseases.	Latest edition -Tietz Textbook of Clinical Chemistry 5 th edition Burtis C A
7	Rate Process	Chemical Kinetics and Stability: Reference: MARTIN'S physical pharmacy and pharmaceutical sciences physical chemical and biopharmaceutical principles in the pharmaceutical sciences	SIXTH EDITION, Editor PATRICK J. SINKO, PhD, RPh, Chapter 14