



## **COURSE OUTCOMES**

### **D.Pharm First Year ER 2020**

#### **ER20-11T. PHARMACEUTICS (Theory)**

Upon successful completion of the course, the student shall be able to

CO1	Describe about the different dosage forms and their formulation aspects.
CO2	Explain the advantages, disadvantages and quality control test of different dosage forms.
CO3	Discuss importance of quality assurance and good manufacturing practices.

#### **ER20-11P. PHARMACEUTICS (Practical)**

Upon successful completion of the course, the student shall be able to

CO1	Calculate working formula from given master formula.
CO2	Formulate the dosage form and dispense in an appropriate container.
CO3	Design the label with the necessary product & patient information
CO4	Perform basic quality control tests for the common dosage forms.

#### **ER20-12T. PHARMACEUTICAL CHEMISTRY (Theory)**

Upon successful completion of the course, the student shall be able to

CO1	Describe chemical class, structure and chemical name of commonly used drugs and pharmaceuticals of both organic and inorganic nature.
CO2	Discuss the pharmacological uses, dosage regimen, stability issues and storage conditions of all such chemical substances commonly used as a drug.
CO3	Describe qualitative and quantitative analysis, impurity testing of the chemical substances given in the official monographs.
CO4	Identify the dosage form and the brand names of the drugs and pharmaceuticals popular in marketplace.



**ER20-12P. PHARMACEUTICAL CHEMISTRY (Practical)**

Upon successful completion of the course, the student shall be able to

CO1	Perform limit tests for various inorganic elements and report
CO2	Prepare standard solutions using principals of volumetric analysis.
CO3	Test the purity of selected organic and inorganic compounds against the monograph studies.
CO4	Synthesize the selected chemical substances as per the standard synthetic scheme.
CO5	Perform qualitative tests to systematically identify the unknown chemical substances.

**ER20-13T. PHARMACOGNOSY (Theory)**

Upon successful completion of the course, the student shall be able to

CO1	Identify the important/common crude drug of natural origin.
CO2	Describe the uses of herbs in nutraceuticals and cosmeceuticals.
CO3	Discuss the principles of alternative system of medicines.
CO4	Describe the importance of quality control of drugs of natural origin

**ER20-13P. PHARMACOGNOSY (Practical)**

Upon successful completion of the course, the student shall be able to

CO1	Identify the given crude drugs based on the morphological characteristics.
CO2	Take a transverse section of given crude drug.
CO3	Describe the anatomical characteristics of the given crude drug under the microscopical conditions.
CO4	Carry out physical and chemical tests to evaluate the given crude drugs



**ER20-14T. HUMAN ANATOMY & PHYSIOLOGY (THEORY)**

Upon successful completion of the course, the student shall be able to

CO1	Describe various organ system of human body.
CO2	Homeostatic mechanisms and their imbalances in the human body.
CO3	Discuss anatomical features of the important human organs and tissues.
CO4	Discuss the significance of various vital physiological parameters of human body.

**ER20-14P. HUMAN ANATOMY & PHYSIOLOGY (PRACTICAL)**

Upon successful completion of the course, the student shall be able to

CO1	Perform the haematological tests in human subjects and interpret the result.
CO2	Record, monitor and document the vital physiological parameters in human subjects and interpret the results.
CO3	Describe the anatomical features of important human tissues under microscopical conditions
CO4	Discuss the significance of various anatomical and physiological characteristics of human body

**ER20-15T. SOCIALPHARMACY (Theory)**

Upon successful completion of the course, the student shall be able to

CO1	Discuss about roles of pharmacist in various national health program.
CO2	Describe various sources of health hazards and disease preventive measures.
CO3	Discuss the conditions. Health care issues associated with food and nutritional substances.
CO4	Describe general roles and responsibilities of pharmacist in public health.



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**ER20-15P. SOCIALPHARMACY (Practical)**

Upon successful completion of the course, the student shall be able to

CO1	Describe the roles and responsibilities of pharmacists in various National health Programs.
CO2	Design promotional materials for public health awareness
CO3	Describe various health hazards including microbial sources
CO4	Advice on preventive measures for various diseases
CO5	Provide first aid for various emergency conditions