DELTA UNIVERSITY
FOR SCIENCE AND TECHNOLOGY





List of equipment in Drug analysis and chromatography research unit

الجهاز	الموديل	عدد	التطبيق العملي المواصفات	صوره للجهاز
Multi-Channel-Modular potentiostat /galvanostat	**M204 modules**	1	It was supported with original NOVA software which can supports the following electrochemical techniques: ▪ CV Potentiostatic, galvanostatic and current integration ▪ Linear Sweep voltammetry and polarization ▪ Sampled DC voltammetry ▪ Normal pulse, Differential Pulse Voltammetry ▪ Square wave and AC voltammetey ▪ Chrono Amperometry, potentiometry and coloumetry ▪ Chrono charge discharge ▪ Potentiometric stripping analysis	
Pure water system	Stakpure **OmniaTap 12 UV**	1	It is used to produce ultra pure deionized water	

Solid phase extraction system	**Labtech**	1	▪ Solid phase extraction was used to concentrate and purify samples for analysis. ▪ It can be used to isolate analytes of interest from a wide variety of matrices, including urine, blood, water, beverages, soil, and animal tissue. ▪ SPE manual vacuum manifold 24 positions ▪ LabTech WSP24 is designed on basic SPE working principle. + Vacuum brand made in germany model ME-1C vacuum pump	
Bench top PH/MV	**Jenway**	2	For pH, mV and temperature measurements	
Sensitive Analytical balance	**Entris®** **Sartorius**	2	▪ For sensitive weighing of chemicals 0.1 mg to 220 gm	

Spectrofluoro -photometer	**Shimadzu Model RF-6000**	1	• **It supports Applications in a Wide Variety of Fields** • Evaluating the Luminous Efficiency of Solid-State Semiconductor Materials. • Measuring the Fluorescence Quantum Efficiency of Solution Samples. • Long Wavelength Measurements up to 190 nm which can be used in research photosynthetic proteins for determining the mechanisms involved in artificial photosynthesis. • Potential for Identifying the Source of Minerals • Assay of pharmaceuticals • It can be used in Fluorescent Dyes for DNA Detection • It can be used in food analysis • It can be used in environmental applications	
UV-VIS Spectrophoto-meter	**Shimadzu** **Model:** **UV-1900i**	1	▪ It was supplied with original Software packages (UV probe and lab solution) for easy handling of spectrum data. ▪ It can be used in photometric or kinetic modes. ▪ It can be used in different fields like quantitative analysis of pharmaceutical compounds, determine their purity and degradation pathway. It can be used in environmental analysis and nanotechnology	

Sensitive Analytical balance	**Entris®** **Sartorius**	1	▪ For sensitive weighing of chemicals 1 mg to 220 gm	
UPLC	**ACQUITY H-Class PLUS (CH-A) Core System** **UPLC Waters® with PDA and fluorescence detectors**	1	▪ UPLC is capable of separation of different compounds with different nature after optimization of mobile phase and stationary phase with high resolution and minimum analysis time using low amount of mobile phase. ▪ It can be used for determination of different compounds from different matrices after manipulation of samples. So it can determine sample from different matrices like pharmaceutical, herbal extract and biological fluids. ▪	
pH/ **Conductivity Benchtop Multipara-meter Meter Kit**	**Thermoscien tific**	1	▪ For pH, Conductivity, temperature and TDS	

Filtration System with pump	**Rocker**	2	▪ For filtration of solvents	
HPLC with UV detection and quaternary pump with manual injection	**Shimadzu**	1	**It was supplied with different columns to serves different modes of separation like**: ▪ HPLC C_{18} 5µm 4.6 x 250 mm column. ▪ HPLC C_8 5µm 4.6 x 250 mm column. ▪ HPLC HILIC 5µm 4.6 x 250 mm column ▪ HPLC Fluoro-Phenyl 5µm 4.6 x 250 mm column ▪ Monolithic C18, LC Column 100x4.6 mm ▪ Cellulose chiral column 4.6 x 250 mm . ▪ Through this diversity of stationary phases; it can be used for separation and quantitation of different compounds in different matrices	
Ultrasonic cleaning model	**Elma**	2	For sonication and degassing of solvents and buffers	
Hotplate with Stirrer	**Stuart**	1	For chemical synthesis and heating of solution with stirring	