

Department of Liberal Education
Era University, Lucknow
Course Outline
Effective From: 2023-24

Name of the Program	B.A. / B.Sc. (LIBERAL EDUCATION)		Year/ Semester:	2 nd / 4 th
Course Name	Fundamentals of Endocrinology & Nutritional Biochemistry Practical	Course Code:	BCH202P	Type: Practical
Credits	01		Total Practical Hours:	30 Hours
Evaluation Spread	Internal Continuous Assesment:	10 Marks		End Term Exam: 15 Marks
Type of Course	<input type="radio"/> Compulsory	<input checked="" type="radio"/> Core	<input type="radio"/> Creative	<input type="radio"/> Life Skill
Course Objectives	The objective of the course is to enable the students to learn to make slides of endocrine tissues to learn about their abnormalities as well prepare charts for diets of various lie stages, alongwith learn basics of baking and preservation of food.			
Course Outcomes(CO): <i>After the successful course completion, learners will develop following attributes:</i>				
Course Outcome (CO)	Attributes			
CO1	To prepare and study permanent slides for studying the morphological and biochemical changes in the endocrine tissues			
CO2	The students would learn to do calcium estimation from samples			
CO3	The students will learn to plan diets for various stages, and learn how the dietics system works in a hospital.			
CO4	The students would learn basics of bakery and food preservation			
Pedagogy	Interactive understanding of principles, requirements, methods and precautions and integration of classroom teaching and lab demonstration, demonstration of the methodology; self-practice and experimentation by students			
Internal Evaluation Mode	Experiment-Writing and Conductance File Maintenance/ Laboratory Record Continuous Attendance and Participation			
Practical No.	Experiments		Contact Hours	Mapped CO
1.	Collection and fixing of endocrine tissues for making blocks for slide preparation such as thyroid gland, pancreas		6	CO1
2.	Cutting of blocks and staining for making the permanent slides of tissues		6	CO1
3.	Calcium estimation		2	CO2
4.	Observation of HCG estimation by ELISA		4	CO2

5.	Preparation of balanced diet for 4 stages of life	4	CO3
6.	Bakery & common basic preservative methods of food	6	CO4
7.	Visit to ward, dietics lab and kitchen	2	CO3

CO-PO and PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	3	2	2	3	2	1	2	1	2	2	2	2	3	1
CO2	2	3	2	2	3	2	2	1	3	2	2	2	2	1
CO3	3	2	3	2	3	3	2	1	3	2	2	2	2	2
CO4	3	2	3	2	3	3	2	3	3	2	2	3	3	2

Strongcontribution-3, Averagecontribution-2, Lowcontribution-1,

Suggested Readings:

Reference Books	<ol style="list-style-type: none"> 1. Cytology and Cytotechnology-Practical. Jayaswal RP. Notion Press 2. Cytology Genetics and Infectious Diseases. Dr. Veer Bala Rastogi, Kedar Nath Prem Nath Publications. 3. Handbook of Applied Biochemistry, Nutrition and Dietetics. Shivananda Nayak. Jaypee Brothers Medical Publishers. 5th Edition
E-Resources	<ol style="list-style-type: none"> 1. https://faculty.ksu.edu.sa/sites/default/files/pdf_copy_haematology_laboratory_manual_cls_241.pdf 2. https://www.clinicallabs.com/media/3398/cytology_specimen_collection_manual.pdf 3. https://cytojournal.com/cellblockistry-chemistry-and-art-of-cell-block-making-a-detailed-review-of-various-historical-options-with-recent-advances/ 4. Block making: https://youtu.be/dDB_4MphhGo

Internal Practical Evaluation:

Component	Marks
Experiment-Writing and Conductance	5
File Maintenance/ Laboratory Record	2
Continuous Attendance and Participation	1
Viva-Voce	2
Total Marks	10

Course created by: Dr. Ghazala Zaidi

Signature:

Approved by: Prof. Sudhir Mahrotra

Signature: