

COURSE HANDOUT

HUMAN ANATOMY & PHYSIOLOGY-I (PRACTICAL)

COURSE CODE: BP107P



PROGRAMME EDUCATIONAL OBJECTIVES

- Educating pharmacy students through innovative, practical oriented teaching methods to facilitate their overall professional development.
- Promoting students and faculty members for conducting basic and applied research and scholarly activities.
- Foster an entrepreneurial spirit amalgamated with team work, leadership qualities and multidisciplinary approach.
- Contributing to society through healthcare awareness programs.
- To inculcate in students professional and ethical attitude, effective communication skill and awareness to current trends by engaging in lifelong learning to enhance skills within and across disciplines to compete globally.

Programme Name	Bachelor of Pharmacy (B. Pharmacy)
Course Name	Human Anatomy & Physiology-I (Practical)
Course Code	BP107P
Session	2023-24
Semester	I
Labs (Per Week)	1 (0-0-4)
Course Credit	2
Course Coordinator Name	Mr. Abhishek

1. Scope of the Course:

Practical physiology is complementary to theoretical discussions in physiology. Practicals allow the verification of physiological processes discussed in theory classes through experiments on living tissue, intact animals or normal human beings.

2. Course Outcomes (COs):

- 107.1. Describe the parts and the function of microscope with associated application.
- 107.2. Differentiate between several type of tissue.
- 107.3. Identify the various bone of skeletal system with their location and articulation.
- 107.4. Synchronize the knowledge about the nervous system and endocrine glands of the body.
- 107.5. Demonstrate the physiology of various sensory organ such as skin, eye, ear etc.

3. Reference Books:

- RB1: Sembulingam K, Sembulingam P. Essentials of Medical Physiology. Jaypee Brothers Medical Publishers, New Delhi.
- RB2: Kathleen JWW. Anatomy and Physiology in Health and Illness. Churchill Livingstone, New York.
- RB3: Ghai CL. Textbook of Practical Physiology. Jaypee Brothers Medical Publishers, New Delhi.

4. Other Readings & Relevant Websites:

Sr. No.	Link of Journals, Magazines, Websites and Research Papers
1	https://www.youtube.com/@solutionpharmacy/
2	https://www.biodigital.com/
3	https://vlab.amrita.edu/?sub=3/

5. Lab Plan:

Sr. No.	Experiment	Dates (tentative)			
		Section A		Section B	
		Batch A	Batch B	Batch A	Batch B
01	Study of a compound microscope.	22.09.2023	21.09.2023	18.09.2023	19.09.2023
02	Microscopic study of epithelial and connective tissue	29.09.2023	28.09.2023	25.09.2023	26.09.2023
03	Microscopic study of muscular and nervous tissue	06.10.2023	05.10.2023	09.10.2023	03.10.2023
04	Identification of axial bones	13.10.2023	12.10.2023	16.10.2023	10.10.2023
05	Identification of appendicular bones	20.10.2023	19.10.2023	23.10.2023	17.10.2023
06	To carry out the study of the integumentary system	27.10.2023	26.10.2023	30.10.2023	31.10.2023
07	To carry out the study of the central nervous system	03.11.2023	02.11.2023	06.11.2023	07.11.2023
08	To carry out the study of the peripheral nervous system	10.11.2023	09.11.2023	20.11.2023	21.11.2023
09	To study the endocrine system (Pituitary,	17.11.2023	16.11.2023	04.12.2023	28.11.2023

	Thyroid & Parathyroid glands)				
10	To demonstrate the recording of body temperature	24.11.2023	23.11.2023	11.12.2023	05.12.2023
11	To demonstrate the function of the olfactory nerve	01.12.2023	30.11.2023	18.12.2023	12.12.2023
12	To examine the different types of taste	08.12.2023	07.12.2023	25.12.2023	19.12.2023
13	To demonstrate the visual activity	15.12.2023	14.12.2023	08.01.2024	26.12.2023
14	To demonstrate the reflex activity	22.12.2023	21.12.2023	15.01.2024	02.01.2024
15	To demonstrate the positive and negative feedback mechanism	29.12.2023	28.12.2023	22.01.2024	09.01.2024
16	To study the modern disease diagnosis methods.	05.01.2024	04.01.2024	29.01.2024	16.01.2024

6. Content Beyond Syllabus (CBS):

Sr. No.	Topics	PO (Annexure 1)
1	To study the modern disease diagnosis methods.	PO1, PO4, PO7, PO10, PO11

7. Evaluation Scheme:

The marks allocated for the continuous mode of internal assessment shall be awarded for attendance, practical records, regular viva voce, etc. Two practical sessional exams shall be conducted during mid of the semester. The average marks of the two practical sessional exams shall be computed for internal assessment. A practical sessional exam shall be conducted for 40 marks and shall be computed for 10 marks. Weightage for various evaluation components is as below:

Sr. No.	Evaluation Component	Weightage
1	Internal Assessment	
	1. Continuous Mode	05
	2. Practical Sessional Exams	10
2	End Semester Practical Exam	35
	Total	50

As per PCI and University guidelines, minimum 75% attendance is required to become eligible for appearing in the End Semester Practical Examination.

This document is approved by:

Designation	Name	Signature
Course Coordinator	Mr. Abhishek	
HOD	Dr. Ajmer Singh	
Principal	Dr. Kumar Guarve	

ANNEXURE I: PROGRAM OUTCOMES

1. **Pharmacy knowledge:** Possess knowledge and comprehension of the core and basic knowledge associated with the profession of pharmacy, including biomedical sciences; pharmaceutical sciences; behavioral, social, and administrative pharmacy sciences; and manufacturing practices.
2. **Planning abilities:** Demonstrate effective planning abilities including time management, resource management, delegation skills and organizational skills. Develop and implement plans and organize work to meet deadlines.
3. **Problem analysis:** Utilize the principles of scientific enquiry, thinking analytically, clearly and critically, while solving problems and making decisions during daily practice. Find, analyze, evaluate and apply information systematically and shall make defensible decisions.
4. **Modern tool usage:** Learn, select, and apply appropriate methods and procedures, resources, and modern pharmacy-related computing tools with an understanding of the limitations.
5. **Leadership skills:** Understand and consider the human reaction to change, motivation issues, leadership and team-building when planning changes required for fulfillment of practice, professional and societal responsibilities. Assume participatory roles as responsible citizens or leadership roles when appropriate to facilitate improvement in health and wellbeing.
6. **Professional identity:** Understand, analyze and communicate the value of their professional roles in society (e.g., health care professionals, promoters of health, educators, managers, employers, employees).
7. **Pharmaceutical ethics:** Honour personal values and apply ethical principles in professional and social contexts. Demonstrate behavior that recognizes cultural and personal variability in values, communication and lifestyles. Use ethical frameworks; apply ethical principles while making decisions and take responsibility for the outcomes associated with the decisions.
8. **Communication:** Communicate effectively with the pharmacy community and with society at large, such as, being able to comprehend and write effective reports, make effective presentations and documentation, and give and receive clear instructions.
9. **The pharmacist and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety and legal issues and the consequent responsibilities relevant to the professional pharmacy practice.
10. **Environment and sustainability:** Understand the impact of the professional pharmacy solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
11. **Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. Self-assess and use feedback effectively from others to identify learning needs and to satisfy these needs on an ongoing basis.

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