CAUVERY COLLEGE FOR WOMEN (AUTONOMOUS)

NATIONALLY ACCREDITED (IV CYCLE) WITH "A+" GRADE BY NAAC
TIRUCHIRAPPALLI

DEPARTMENT OF FOOD SERVICE MANAGEMENT AND DIETETICS

B.Sc., NUTRITION AND DIETETICS

SYLLABUS

2026-2027 and Onwards

CAUVERY COLLEGE FOR WOMEN (AUTONOMOUS)

DEPARTMENT OF FOOD SERVICE MANAGEMENT AND DIETETICS

VISION

To strengthen and integrate academic excellence, ethical values and social responsibility to develop a healthy nation by imparting skill based knowledge, professional competency and entrepreneurial skills.

MISSION

- To have a breath of knowledge across the subject areas of Nutrition and Dietetics.
- To professionally enrich the students for successful career in Academia, Industry and Research.
- To promote and inculcate self-reliance, social relevance, sound value system and code of professional practice among students.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEOs	Statements
PEO1	**LEARNING ENVIRONMENT** To facilitate value-based holistic and comprehensive learning by integrating innovative learning practices to match the highest quality standards and train the students to be effective leaders in their chosen fields.
PEO2	**ACADEMIC EXCELLENCE** To provide a conducive environment to unleash their hidden talents and to nurture the spirit of critical thinking and encourage them to achieve their goal.
PEO3	**EMPLOYABILITY** To equip students with the required skills in order to adapt to the changing global scenario and gain access to versatile career opportunities in multidisciplinary domains.
PEO4	**PROFESSIONAL ETHICS AND SOCIAL RESPONSIBILITY** To develop a sense of social responsibility by formulating ethics and equity to transform students into committed professionals with a strong attitude towards the development of the nation.
PEO5	**GREEN SUSTAINABILITY** To understand the impact of professional solutions in societal and environmental contexts and demonstrate the knowledge for an overall sustainable development.

PROGRAMME OUTCOMES FOR
B.Sc., NUTRITION AND DIETETICS PROGRAMME

PO NO	Programme Outcome On completion of B.Sc., Programme, the students will be able to
PO1	**ACADEMIC EXCELLENCE AND COMPETENCE** Elicit firm fundamental knowledge in theory as well as practical for coherent understanding of academic field to pursue multi and interdisciplinary science careers in future.
PO2	**HOLISTIC AND SOCIAL APPROACH** Create novel ideas related to the scientific research concepts through advanced technology and sensitivity towards sustainable environmental practices as well as social issues.
PO3	**PROFESSIONAL ETHICS AND TEAM WORK** Explore professional responsibility through project strategies, internships, field trip/industrial visits and mentorship programmes to transmit communication skills.
PO4	**CRITICAL AND SCIENTIFIC THINKING** Equip training skills in internships, research Projects to do higher studies in multidisciplinary path with higher level of specialization to become professionals of high-quality standards.
PO5	**SOCIAL RESPONSIBILITY WITH ETHICAL VALUES** Ensure ethical, social and moral values in the minds of learners and attain gender parity for building a healthy nation.

PROGRAMME SPECIFIC OUTCOMES FOR
B.Sc ., NUTRITION AND DIETETICS PROGRAMME

PSO NO	Programme Specific Outcomes` Students of B.Sc., Nutrition & Dietetics will be able to	POs Addressed
PSO1	Apply the knowledge of food science, nutrition and dietetics to resolve the scientific issues and problems.	PO1
PSO2	Assess the nutritional status and recommend nutritional support and therapeutic care as sustainable approach for better health and prevention of diseases.	PO1, PO2
PSO3	Associate physiological, biochemical and microbiological parameters with health and diseases.	PO1
PSO4	Develop technical and human relation skills in relation to food services, demonstrate professional attributes required to manage the hospitality industry and to communicate effectively in the context of nutrition and dietetics.	PO3, PO4
PSO5	Demonstrate critical thinking skills and analytical abilities to identify and solve problems through internships and projects.	PO4, PO5

CAUVERY COLLEGE FOR WOMEN (AUTONOMOUS)

DEPARTMENT OF FOOD SERVICE MANAGEMENT AND DIETETICS

B. Sc., NUTRITION AND DIETETICS

CHOICE BASED CREDIT SYSTEM-LEARNING OUTCOME-BASED CURRICULUM FRAMEWORK (CBCS – LOCF)

(For the Candidates admitted from the Academic year 2026-2027 onwards)

Semester	Part	Course	Course Title	Course Code	Inst. Hrs. /	Credits	Exam			Total
							Hrs.	Marks Int	Marks Ext	
I	I	Ability Enhancement Course – I (AEC - I)	பொதுத்தமிழ்-I	26ULT1	6	3	3	30	70	100
			Hindi Language & Literature - I	26ULH1						
			Sanskrit Prose and Vocabulary	26ULS1						
			Basic French-I	26ULF1						
	II	Ability Enhancement Course – II (AEC - II)	General English - I	26UE1	6	3	3	30	70	100
	III	Core Course – I(CC-I)	Food Science	26UND1CC1	5	5	3	30	70	100
		Core Practical - I (CP-I)	Food Science (P)	26UND1CP1	3	3	3	40	60	100
		Allied Course- I (AC-I)	Human Physiology	26UND1AC1	3	3	3	30	70	100
		Allied Course Practical-I (ACP-I)	Human Physiology(P)	26UND1ACP1	3	3	3	40	60	100
	IV	Ability Enhancement Compulsory Course-I (AECC-I)	Value Education	26UGVE	2	2	-	100	-	100
		Ability Enhancement Compulsory Course-II (AECC-II)	Cyber Security	26UGCS	2	2	-	100	-	100
	Total				**30**	**24**	-	-	-	**800**

SEMESTER I	INTERNAL MARKS: 30			EXTERNAL MARKS:70
COURSE CODE	**COURSE TITLE**	**CATEGORY**	**HRS / WEEK**	**CREDITS**
26UND1CC1	**FOOD SCIENCE**	**CORE COURSE**	**5**	**5**

Course Objectives

- To obtain knowledge on different food groups and their composition
- To study the different methods of cooking
- To understand the role of food groups in cookery

S. No.	Course Features	Relevance Status
1.	Course emphasis on Employability / Entrepreneurship / Skill Development	Employability, Entrepreneurship, Skill Development
2.	Course integrates cross cutting issues relevant to Professional Ethics/Gender sensitization/ Environment and Sustainability/ Human Values / Indian Knowledge System	Environment and Sustainability
3.	Course relevant to Local/Regional/National/ Global needs	Global need
4.	Course focus on Sustainable Developmental Goals	SDG 12,14,15

Course Outcome and Cognitive Level Mapping

CO Number	CO Statement On the successful completion of the course, students will be able to	Cognitive Level
CO 1	Identify foods based on food groups and ascertain the selection criteria of different food groups	K1
CO 2	Explain classification, nutritive value and storage of different food groups	K2
CO 3	Relate changes in food due to cooking, processing and factors that affect acceptability and nutritive value of various food groups	K3
CO 4	Sketch different methods of cooking and select the methods best suited for cooking different foods.	K3
CO 5	Apply knowledge of food selection, preparation and cooking techniques to improve food quality and safety.	K4, K5

Mapping of CO with PO and PSO

COs	PSO1	PSO2	PSO3	PSO4	PSO5	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	-	1	2	3	1	3	-
CO2	3	2	1	-	1	2	3	1	3	-
CO3	3	2	1	-	1	2	3	1	3	-
CO4	3	2	1	-	1	2	3	1	3	-
CO5	3	2	1	-	1	2	3	1	3	-

"1" - Slight (Low) Correlation "2" - Moderate (Medium) Correlation

"3" - Substantial (High) Correlation "-" - indicates there is no correlation.

SYLLABUS

UNIT	CONTENT	HOURS	COs	COGNITIVE LEVEL
I	**a) Fundamentals of Food Science** Definition of food science, basic five food groups, nutritional classification of foods - energy yielding, body building, protective and regulatory foods. **b) Cooking methods** Objectives of cooking, different types of cooking methods-moist heat methods, dry heat methods, microwave cooking, combination methods of cooking - merits and limitations.	15	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
II	**a) Cereals and Millets** Structure, composition and nutritive value o f rice, wheat, millets (maize, jowar, ragi, bajra). Milling and parboiling of rice. Role of cereals in cookery. Effect of cooking on starch-Dextrinization, gelatinization, retrogradation. **b) Pulses** Structure, Composition, nutritive value, factors affecting cooking quality of pulses, germination, role of pulses in cookery.	15	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
III	**a) Vegetables** Classification, composition and nutritive value, pigments present -fat soluble, water soluble. Selection of vegetables, cooking of vegetables-changes during cooking. **b) Fruits** Classification, composition and nutritive value, selection of fruits. Changes during ripening of fruits, enzymatic browning and methods of prevention.	15	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
IV	**a) Milk and Milk Products** Composition, nutritive value, types of milk products- fermented milk products (Buttermilk, Yogurt) and non-fermented milk products (Skim milk, evaporated milk, sweetened condensed	15	CO1, CO2, CO3, CO4,	K1, K2, K3, K4,K5

	milk, Milk powder, Khoa, Ice cream). Role of milk in cookery. Pasteurization and homogenization. **b) Egg, Meat, Poultry and Fish** Structure, classification, composition and nutritive value, selection, post mortem changes in meat, factors affecting tenderness of meat, cooking and storage.		CO5	
V	**a) Fats and Oils** Types, sources-animal fat and vegetable fat. Rancidity- Types and prevention, smoking point and role of fats or oils in cookery. **b) Sugar** Types and market forms of sugar, sugar related products, stages of sugar cookery. Role of sugar in cookery. **d) Spices and Condiments** Classification, uses of spices in Indian cookery and medicinal properties.	15	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
VI	**SELF STUDY FOR ENRICHMENT** **(Not to be included for External Examination)** Recent methods of cooking–Ohmic cooking and induction cooking –merits and demerits. Role of millets in cookery. Role of fruits and vegetables in cookery. Benefits of pasteurization. Salt -Types and uses.	-	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5

Text Books

1. Potter, Norman. N. (2007).*Food Science*. (5thed). CBS Publications and distributors. New Delhi.

2. Shakuntala Manay. N. (2013). *Foods: Facts and Principles*. (3rd ed). New Age International Publishers. New Delhi.

3. Swaminathan, M. (2019). *Advanced Text Book on Food and Nutrition*. Volume (2nded). Bangalore Printing and Publishing Co. Ltd, Bangalore.

4**.** Mahatb, S. Bamji. Kamala Krishnasamy. Brahman. G.N.V.(2020).*Textbook of Human Nutrition*. (3rded.). Oxford and IBH Publishing Co. P. Ltd., New Delhi.

Reference Books

1. Sharma Jyoti, S. (2009). *Applied Nutrition and Food Science*. Akansha Publishing House, New Delhi.

2. Raheena Begum, M. (2015). *Textbook of Foods, Nutrition and Dietetics*. (3rded.). Sterling Publishers Pvt. Ltd, New Delhi.

3. Krause, M. V. Hunesher, M. A. (2013). *Food, Nutrition and Diet Therapy*. W. B. Saunders Company. Philadelphia. London.

4. Vickie, A. Vaclavik Elizabeth, W. Christian. (2014).*Essentials of Food Science*. (4thed.). Springer Science and Business Media, New York.

5. Avantina Sharma. (2019). *Textbook of Food Science and Technology*. (3rded.). CBS Publishers and Distributors.

Web Links:

- https://www.scienceofcooking.com/
- https://www.brainkart.com/article/Structure-of-cereal-grains_33949/
- https://fruitsandveggies.org/stories/key-nutrients-that-protect/
- https://pubmed.ncbi.nlm.nih.gov
- https://journalofethnicfoods.biomedcentral.com

Journals

1. Food Science and Nutrition, John Wiley and Sons Ltd publisher, United Kingdom.

2. Food and Nutrition Research, Co-Action Publishing, Sweden.

3. Journal of Food Science Education, Institute of Food Technologists publishing, United States.

4. Journal of the Science of Food and Agriculture, Wiley-Blackwell publishing, England.

Pedagogy:

E-content, Lecture, Chalk and talk, Power point presentation, Seminar, Assignment, Demonstration and Industrial visit.

Course Designer:

- Dr . B.Thanuja

SEMESTER I	INTERNAL MARKS - 40		EXTERNAL MARKS - 60	
COURSE CODE	**COURSE TITLE**	**CATEGORY**	**HRS/ WEEK**	**CREDITS**
26UND1CP1	**FOOD SCIENCE (P)**	**CORE PRACTICAL**	**3**	**3**

Course Objectives

- To gain knowledge in food groups.
- To compare weighing and measuring of raw and cooked food items.
- To formulate recipes by applying different cooking techniques.

S. No.	Course Features	Relevance Status
1.	Course emphasis on Employability/Entrepreneurship/Skill Development	Employability, Entrepreneurship, Skill Development
2.	Course integrates cross cutting issues relevant to Professional Ethics/Gender sensitization/ Environment and Sustainability/ Human Values / Indian Knowledge System	Environment and Sustainability
3.	Course relevant to Local/Regional/National/ Global needs	Global need
4.	Course focus on Sustainable Developmental Goals	SDG 12,14,15

Course Outcome and Cognitive Level Mapping

CO Number	CO Statement On the successful completion of the course, students will be able to	Cognitive Level
CO 1	Identify various food groups and cooking methods	K1
CO 2	Interpret weighing and measuring and compare weighment of raw and cooked food items	K2
CO 3	Prepare recipes from five food groups	K3
CO 4	Associate cooking methods with different food groups	K4
CO 5	Examine role of food groups in cookery	K4, K5

Mapping of CO with PO and PSO

COs	PSO1	PSO2	PSO3	PSO4	PSO5	PO1	PO2	PO3	PO4	PO5
CO1	3	1	-	2	1	3	2	-	1	-
CO2	3	1	-	2	1	3	2	-	1	-
CO3	3	1	-	2	1	3	2	-	1	-
CO4	3	1	-	2	1	3	2	-	1	-
CO5	3	1	-	2	1	3	2	-	1	-

"1" - Slight (Low) Correlation "2" - Moderate (Medium) Correlation
"3" - Substantial (High) Correlation "-" - indicates there is no correlation.

List of Experiments:

1. **Identification of ingredients** from various food groups.
2. **Weighing and measuring** of raw and cooked food items.
3. **Cooking methods:**
    - Moist heat methods -Boiling, Simmering, Steaming, Pressure cooking
    - Dry heat method -Baking
    - Fat as a medium of cooking -Shallow and Deep fat frying.
4. **Cereal Based Recipes:** Idly, Chapati, Poori, Vermicelli upma, Kozhukattai, Aloo paratha, Rice.
5. **Millet Based Recipes:** Ragi Vermicelli upma, Sathumavu mix, Millet ball, Millet pongal, Millet payasam.
6. **Pulse Based Recipes:** Sundal, Bholi, Green gram payasam, Vadai, Sambar and Sprouts salad.
7. **Fruit Based Recipes:** Fritters, Halwa, Salad, Milkshakes and Fresh juices, Apple stew
8. **Vegetable Based Recipes:** Green leafy kootu, Avial, Stewed potato curry, Poriyal, Vegetable Salad, and Vegetable soup.
9. **Milk Based Recipes:** Paneer, Payasam, Ice cream, Tea and Coffee.
10. **Meat Based Recipes:** Deep fried Chicken, Mutton gravy.
11. **Fish Based Recipes:** Steamed fish, Fish fry, Fish gravy.
12. **Egg Based Recipes:** Boiled, Scrambled and Poached egg and Omelette.

Text Books

1. Shakuntala Manay, N., (2013). *Foods: Facts and Principles*. (3rd ed.), New Age International Publishers. New Delhi.
2. Swaminathan, M., (2019). *Advanced Text Book on Food and Nutrition*. (2nd ed.), Bangalore Printing and Publishing Co. Ltd, Bangalore.

Reference Books

1. Vickie, A., Vaclavik Elizabeth, W., Christian, (2014). *Essentials of Food Science*, (4th ed.), Springer Science and Business Media, New York.
2. Raheena Begum, M., (2015). *Textbook of Foods, Nutrition and Dietetics*, (3rd ed.), Sterling Publishers Pvt. Ltd, New Delhi.
3. Avantina Sharma, (2019). *Textbook of Food Science and Technology*. (3rd ed.), CBS Publishers and Distributors.

Pedagogy:

E-content, Lecture, Power point presentation, Seminar, Assignment, Demonstration and Industrial visit.

Web Links:

- https://www.scienceofcooking.com/
- https://www.nios.ac.in/media/documents/SecHmscicour/english/Home%20Science%20(Eng)%20Ch-4.pdf
- https://www.youtube.com/watch?v=QO_V3h14Fyc&ab_channel=SciShow
- https://everydaynourishingfoods.com/how-to-cook-fluffy-millets/

Course Designer:

- Dr. B. Thanuja

SEMESTER I	INTERNAL MARKS: 30		EXTERNAL MARKS:70	
COURSE CODE	**COURSE TITLE**	**CATEGORY**	**HRS / WEEK**	**CREDITS**
26UND1AC1	**HUMAN PHYSIOLOGY**	**ALLIED COURSE**	**3**	**3**

Course Objectives

- To gain a comprehensive understanding of the structural organization of major human organs.
- To explain the physiological functions of each organ and their roles in maintaining normal body processes.
- To enhance knowledge of organ physiology and understand how different organs coordinate and integrate.

S. No.	Course Features	Relevance Status
1.	Course emphasis on Employability/Entrepreneurship/Skill Development	Employability, Entrepreneurship, Skill Development
2.	Course integrates cross cutting issues relevant to Professional Ethics/Gender sensitization/ Environment and Sustainability/ Human Values / Indian Knowledge System	Professional Ethics
3.	Course relevant to Local/Regional/National/ Global needs	Global need
4.	Course focus on Sustainable Developmental Goals	SDG 3

Course Outcome and Cognitive Level Mapping

CO Number	CO Statement On the successful completion of the course, students will be able to	Cognitive Level
CO 1	Describe the main structures that make up the human body.	K1
CO 2	Explain how different body systems work.	K2
CO 3	Connect how the structure of an organ relates to its function.	K3
CO 4	Identify the roles of cells, tissues, and organs in the body.	K4
CO 5	Understand how the body adapts to maintain normal function.	K4, K5

Mapping of CO with PO and PSO

COs	PSO1	PSO2	PSO3	PSO4	PSO5	PO1	PO2	PO3	PO4	PO5
CO1	3	1	3	1	1	3	1	2	2	3
CO2	3	1	3	1	1	3	1	2	2	3
CO3	3	1	3	1	1	3	1	2	2	3
CO4	3	1	3	1	1	3	1	2	2	3
CO5	3	1	3	1	1	3	1	2	2	3

"1" - Slight (Low) Correlation "2" - Moderate (Medium) Correlation
"3" - Substantial (High) Correlation "-" - indicates there is no correlation.

SYLLABUS

UNIT	CONTENT	HOURS	COs	COGNITIVE LEVEL
I	**a. Cell:** Cell organelles – Structure and functions of nucleus, cytoplasm, lysosomes, endoplasmic reticulum, Golgi apparatus, mitochondria and cell membrane. **b. Tissues:** Classification, structure and functions. **c. Blood:** Composition, functions, coagulation, factors affecting coagulation, blood groups.	09	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
II	**a. Heart and Circulatory system:** Structure and functions of heart, cardiac cycle, cardiac output, factors affecting cardiac output, normal ECG, blood pressure, and factors affecting blood pressure. **b. Respiratory system:** Structure and functions of organs of respiration-nose, pharynx, larynx, trachea, bronchi, and lungs. Mechanism of respiration, Lung volumes and lung capacities, Factors affecting efficacy of respiration.	09	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
III	**a. Nervous System:** General classification of nervous system-, Structural organization of nervous system – neuron, ganglion, neuroglia, nerves – classification - motor, sensory and mixed, Structure and functions of spinal cord, brain - anatomy and functions of cerebrum, cerebellum, brain stem and medulla oblongata. **b. Sense Organs:** Structure and functions of eye, ear, nose and tongue.	09	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5

IV	**a. Gastrointestinal and Hepatobiliary system:** Digestive system- Structure and functions of mouth, pharynx, oesophagus, stomach, small intestine and large intestine. Structure and functions of Digestive gland – salivary, liver, gall bladder and pancreas. **b. Excretory system:** Urinary System-Structure and functions of organs of urinary system- Kidneys, nephron, ureter, bladder, urethra. Mechanism of urine formation. Micturition. Skin- Structure and functions.	09	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
V	**a. Endocrine system :** Thyroid, Parathyroid, Adrenal gland, Pituitary and Sex glands – Structure and functions. **b. Reproductive system:** Female reproductive system-Structure and functions, menstrual cycle, menarche and menopause. Male Reproductive system - Structure and functions.	09	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5
VI	**SELF STUDY FOR ENRICHMENT** **(Not to be included for External Examination)** Functions of haemoglobin, Artificial respiration, Tonge and taste sensations, Glomerular Filtration Rate, Menstrual disorders.	-	CO1, CO2, CO3, CO4, CO5	K1, K2, K3, K4,K5

Text Books

1. Sembulingam. (2016). *Essentials of Medical Physiology*. Health Sciences Publisher. New Delhi.
2. Subramanyam., Sarada. (2018). *Textbook of Human Physiology*. S.Chand and company Ltd, New Delhi.
3. Randhawa.S.S., Atul Kabra.(2017). *Human Anatomy and Physiology*-I. S.Vikas and Company, India.

Reference Books

1. Guyton (2000). Guyton and Hal *Textbook of Medica Physiology*, Saunders, United States of America.
2. Waugh Anne Ross and Wilson (2003). *Anatomy and Physiology in Health and Illness*. Churchill Livingston. New York.
3. Murugesh. N (2011*). Anatomy and Physiology*, Sathya Publishers, Madurai.
4. Wilson Ross (2014). *Anatomy and Physiology in Health and Illness*, Reed Elsevier India Private Limited. New Delhi.
5. Chatterjee .C.2016). *Human Physiology* Volume I, Medical Allied Agency. Kolkata.

Web Link:

- https://www.khanacademy.org/science/health-and-medicine/human-anatomy- and physiology
- https://www.biologyonline.com/tutorials/the-human-physiology
- https://digitaleditions.library.dal.ca/intropsychneuro/chapter/hunger-and-eating/
- https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=NuAs6SreCGryddEfs4kkB A==

Journals:

1. Human Physiology, Maik Nauka / Interperiodica Publishing, Russian Federation.
2. Indian Journal of Clinical Anatomy and Physiology, Innovative publication Pvt. LTD, India.
3. American Journal of Physiology - Endocrinology and Metabolism, American Physiological Society, United States.
4. Canadian Journal of Physiology and Pharmacology, Canadian Science Publishing, Nrc Research Press, Canada.

Pedagogy

Chalk and talk, PPT, Discussion, Assignment, Quiz, Seminar.

Course Designer

- Dr. B.Thanuja

SEMESTER I	INTERNAL MARKS: 40		EXTERNAL MARKS:60	
COURSE CODE	**COURSE TITLE**	**CATEGORY**	**HRS / WEEK**	**CREDITS**
26UND1ACP1	**HUMAN PHYSIOLOGY (P)**	**ALLIED COURSE PRACTICAL**	**3**	**3**

Course Objectives

- To develop knowledge of microscopic anatomy
- To acquire practical skills in basic hematological investigations
- To understand and evaluate basic physiological parameters

S. No.	Course Features	Relevance Status
1.	Course emphasis on Employability/Entrepreneurship/Skill Development	Employability, Entrepreneurship, Skill Development
2.	Course integrates cross cutting issues relevant to Professional Ethics/Gender sensitization/ Environment and Sustainability/ Human Values / Indian Knowledge System	Professional Ethics
3.	Course relevant to Local/Regional/National/ Global needs	Global need
4.	Course focus on Sustainable Developmental Goals	SDG 3

Course Outcome and Cognitive Level Mapping

CO Number	CO Statement On the successful completion of the course, students will be able to	Cognitive Level
CO 1	Identify and differentiate various tissues under the microscope.	K1
CO 2	Distinguish the microscopic structure of muscles based on their characteristic features.	K2
CO 3	Identify the histological features of major organs through microscopic observation.	K2
CO 4	Measure and record physiological parameters such as blood pressure and pulse rate before and after exercise.	K3
CO 5	Interpret the experimental findings and relate them to normal physiological and clinical conditions.	K4, K5

Mapping of CO with PO and PSO

COs	PSO 1	PSO2	PSO3	PSO4	PSO5	PO1	PO2	PO3	PO4	PO5
CO1	3	1	3	1	1	3	1	2	2	3
CO2	3	1	3	1	1	3	1	2	2	3
CO3	3	1	3	1	1	3	1	2	2	3
CO4	3	1	3	1	1	3	1	2	2	3
CO5	3	1	3	1	1	3	1	2	2	3

"1" - Slight (Low) Correlation "2" - Moderate (Medium) Correlation
"3" - Substantial (High) Correlation "-" - indicates there is no correlation.

List of Experiments:

1. Histology of Tissues – Columnar, cubical, ciliated, squamous, stratified squamous.
2. Histology of muscles – cardiac, striated, non –striated
3. Microscopic structure of organs – lungs, artery, vein, stomach, ovary, testis, uterus, pancreas.
4. Determination of Blood group and Rh factor
5. Estimation of Haemoglobin (Shali's method)
6. Determination of Bleeding time (Duke method)
7. Determination of Clotting time (Capillary method)
8. Measurement of Blood pressure – before and after exercise
9. Determination of Pulse rate – before and after exercise

Text Books

1. G.K.Pal and Parvati Pal.(2001) *Text book of practical physiology*. Orient Longman Ltd.

Reference Books

1.Sembulingam. (2016). *Essentials of Medical Physiology*. Health Sciences Publisher. New Delhi.
2. Subramanyam., Sarada. (2018). *Textbook of Human Physiology*. S.Chand and Company Ltd, New Delhi

Web Links:

- https://www.khanacademy.org/science/health-and-medicine/human-anatomy-andphysiology
- https://www.biologyonline.com/tutorials/the-human-physiology
- https://digitaleditions.library.dal.ca/intropsychneuro/chapter/hunger-and-eating/
- https://epgp.inflibnet.ac.in/Home/ViewSubject?catid=NuAs6SreCGryddEfs4kkB A==

Pedagogy

Chalk and talk, PPT, Discussion, Assignment, Demonstration

Course Designer

- Dr. B.Thanuja