



HAJEE KARUTHA ROWTHER HOWDIA COLLEGE

(An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai.)

Uthamapalayam, Theni District. Pin Code: 625 533.

DEPARTMENT OF BIOCHEMISTRY

PART – IV NME BIOCHEMISTRY

SYLLABUS

Choice Based Credit System – CBCS

(As per TANSCH/MKU Guidelines)

(Academic Year 2020 -2021 onwards)

Details of Course Category, Code, Credits & Title

Course Category	Course Code	Course Title	Hrs	CIAE	TEE	Max. Marks	Credits
Semester - I							
Part - IV							
NME - I	20UBCN11	Human Health and Nutrition	2	25	75	100	2
Semester - II							
Part - IV							
NME - II	20UBCN21	Herbal Medicine	2	25	75	100	2

Course Code	Course Title	Category	Total Hours	Credits
20UBCN11	Human Health and Nutrition	NME - I	30	2

Nature of Course	
Knowledge Oriented	✓
Skill Oriented	✓
Employability Oriented	
Entrepreneurship Oriented	

Course Relevance	
Local	
Regional	
National	
Global	✓

Preamble

To enable the students, acquire knowledge on basic importance of health, basic human disease, its causes and symptoms.

Syllabus

UNIT I

5 Hours

Nutrition and health: Importance of Good health, Nutrition and Exercise. Causes of disease - environment, age and life style. Obesity and BMI.

UNIT II

3 Hours

Common Diseases of Humans: Causes, Symptoms and Prevention of Ulcer, Appendicitis and Anemia.

UNIT III

10 Hours

Communicable diseases: Immunodeficiency disease: AIDS. Air borne and Water borne diseases: Cholera, Dysentery, Diarrhoea and Amobeosis. Viral diseases: TB, Leprosy, Dengue and Bird Flu.

UNIT IV

6 Hours

Diseases prevention: Disease prevention methods, Vaccination and Immunization schedule.

UNIT V

6 Hours

First aid measures: Accident care, Bleeding and wound care, Fractures and dislocations, electrical shock, burns, breathing emergency and Pregnancy care.

Text Books

M. Swamiathan, *Food and Nutrition*, The Bangalore Printing and Publishing Co. Ltd., Bangalore, 1988, 2nd Edition.

Ananthanarayanan and Paniker's, *Text Book of Microbiology*, Universities Press Pvt Ltd., Hyderabad, 2009, 8th Edition.

Pedagogy

Chalk & Talk, E-Resources, Group Discussion

Teaching aids

Black Board, LCD Projector

Course Contents and Lecture Schedule

Module No.	Topic	No. of Lectures	Content Delivery Methods
UNIT - I			
1.1	Importance of good health	1	Discussion
1.2	Importance of nutrition	1	E-Resources
1.3	Importance exercise	1	Discussion
1.4	Causes of disease	1	Discussion
1.5	Obesity and BMI	1	E-Resources
UNIT - II			
2.1	Ulcer	1	Discussion
2.2	Appendicitis	1	E-Resources
2.3	Anemia	1	Discussion
UNIT - III			
3.1	AIDS	1	Discussion
3.2	Cholera	1	E-Resources
3.3	Dysentery	1	Discussion
3.4	Diarrohea	1	Discussion
3.5	Amobeosis	2	E-Resources
3.6	TB	1	Discussion
3.7	Leprosy	1	Discussion
3.8	Dengue	1	E-Resources
3.9	Bird flu	1	Discussion
UNIT - IV			
4.1	Disease prevention methods	2	Discussion
4.2	Vaccination	2	E-Resources
4.3	Immunization schedule	2	Discussion

UNIT - V			
5.1	Accident care	1	Discussion
5.2	Bleeding and wound care	1	E-Resources
5.3	Fractures and dislocations	1	Discussion
5.4	Electrical shock and Burns	1	Discussion
5.5	Breathing emergency	1	E-Resources
5.6	Pregnancy care	1	Discussion
Total		30	

Course Designer

Ms. S. Muthupriya

Assistant Professor of Biochemistry

Course Code	Course Title	Category	Total Hours	Credits
20UBCN21	Herbal Medicine	NME - II	30	2

Nature of Course	
Knowledge Oriented	✓
Skill Oriented	
Employability Oriented	
Entrepreneurship Oriented	

Course Relevance	
Local	✓
Regional	✓
National	
Global	

Preamble

To give the students acquire knowledge about traditional herbal systems, pharmacological action, cultivation methods, gardening, preservation and marketing of herbals.

Syllabus

- UNIT I** 6 Hours
Introduction to Herbal medicine: Alternative systems of medicine - Scope of herbal medicine- herbals for human diseases.
- UNIT II** 6 Hours
Secondary metabolites: Source - types - pharmacological action of secondary metabolites from medicinal plants.
- UNIT III** 6 Hours
Cultivation of Herbal Plants: Cultivation methods of different types of herbs (any 5) -Marketing & patency of herbal products (GATT, TRIPS & WTO in brief).
- UNIT IV** 6 Hours
Herbal gardening: Herbs grown in home gardens - Different methods in maintaining herbal gardens - Uses in treating diseases - herbal formulations.
- UNIT V** 6 Hours
Herb Plant Propagation: Endangered herbal plants - need for their conservation - techniques used in herbal plant propagation - (Micro propagation - requirements & techniques).

Text Books

- Satheesh Nareen Lal and Meenakshi Singh, **Medicinal Plant of India**, New Central Book Agency Pvt. Ltd., Kolkatta, 2012, 1st Edition.
- K. Janardhan Reddy and Blr Bahadur B. Bhadrachiah and M.L.N. Rao, **Advances in Medicinal Plants**, Universities Press Pvt, Ltd., Kolkatta, 2012, 1st Edition.

Joseph Jose and Rajalakshmi, *Medicinal and Aromatic Plants*, Discovery Publishing House, New Delhi, 2015, 1st Edition.

Reference Books

B.C. Mazumdar and P.M, Mukhopadhyay, *Principles and Practices of herbal Garden*, Daya Publishing House, New Delhi, 2006, 1st Edition.

Subash C. Mandal, *Herbal Drugs*, New Central Book Agency Pvt, Ltd., Kolkatta, 2013, 1st Edition.

Pedagogy

Chalk & Talk, E-Resources, Group Discussion

Teaching aids

Black Board, LCD Projector

Course Contents and Lecture Schedule

Module No.	Topic	No. of Lectures	Content Delivery Methods
UNIT - I			
1.1	Alternative systems of medicine	2	E-Resources
1.2	Scope of herbal medicine	2	Discussion
1.3	Herbals for human diseases.	2	Discussion
UNIT - II			
2.1	Sources	1	E-Resources
2.2	Types	2	Discussion
2.3	Pharmacological action of secondary metabolites from medicinal plants.	3	Discussion
UNIT - III			
3.1	Cultivation methods of different types of herbs (any 5)	3	E-Resources
3.2	Marketing & patency of herbal products (GATT, TRIPS & WTO in brief).	3	Discussion
UNIT - IV			
4.1	Herbs grown in home gardens	2	E-Resources
4.2	Different methods in maintaining herbal gardens	2	Discussion
4.3	Uses in treating diseases	1	Discussion
4.4	Herbal formulations.	1	E-Resources

UNIT - V			
5.1	Endangered herbal plants	2	E-Resources
5.2	Need for their conservation	2	Discussion
5.3	Techniques used in herbal plant propagation	2	Discussion
Total		30	

Course Designer

Ms. S. Muthupriya

Assistant Professor of Biochemistry