
**CLINICAL NUTRITION AND
DIETETICS**

OPEN ELECTIVE

CBCS Mode

FIRST SEMESTER

**MCNDOEL 1: HEALTHY LIFESTYLES AND
NUTRITION**

(Blocks –I and II)

MCNDOEL 1: HEALTHY LIFESTYLES AND NUTRITION

COURSE DESIGN

Dr. S. Vidyashankar

Vice Chancellor
Karnataka State Open University
Mukthagangotri, Mysore-570006

Prof. Ashok Kamble

Dean (Academic)
Karnataka State Open University
Mukthagangotri, Mysore-570006

COURSE CO-ORDINATOR

Dr. Hemalatha M.S.

Chairperson, Department of Food Science and Nutrition
Karnataka State Open University, Mukthagangothri, Mysore-570006

COURSE WRITERS

NAME	COURSE	BLOCKS	UNITS
Ms. Ayesha Siddiqua Department of Food Science and Nutrition, Yuvaraja's College, UOM, Mysuru	CNDOEL 1	Block I	1 & 2
Ms. Lakshmi Department of Food Science and Nutrition, Yuvaraja's College, UOM, Mysuru	CNDOEL 1	Block I	3 & 4
Dr. Anitha C. DOS&R in Food Science and Nutrition, KSOU, Mysuru	CNDOEL 1	Block II	5, 6, 7 & 8

COURSE EDITORS

Dr. Shyamala B.N Department of Food Science and Nutrition, Yuvaraja's College, UOM, Mysuru	CNDOEL 1	Block I	1, 2, 3, & 4
Prof. Shekara Naik R.S. Department of Food Science and Nutrition, Yuvaraja's College, UOM, Mysuru	MCNDOEL 1	Block II	5, 6, 7 & 8
Dr. Hemalatha M.S. DOS&R in Food Science and Nutrition, KSOU, Mysuru	MCNDOEL 1	Block I Block II	1, 2, 3, 4, 5, 6, 7, & 8

SLM Editorial Committee	
<p>Dr. Nataraju A Chairman, Department of Biochemistry, KSOU, Mysore</p> <p>Dr. Hemalatha M.S. Chairperson, Department of Food Science and Nutrition, KSOU, Mysore</p> <p>Dr. Anitha C. Assistant Professor, Department of Food Science and Nutrition KSOU, Mysore</p> <p>Dr. Shekara Naik R. Professor, Department of Food Science and Nutrition YCM, UOM, Mysore</p>	<p>Chairman</p> <p>Member & Convener</p> <p>Member</p> <p>Member</p>
PUBLISHER	
<p>The Registrar Karnataka State Open University, Mukthagangotri, Mysore-570006</p>	
<p>Developed by Academic Section, KSOU, Mysore. Karnataka State Open University (KSOU), 2022 All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from Karnataka State Open University. Further information on the Karnataka State Open University Programmes may be obtained from the University's Office at Mukthagangotri, Mysore-570006 Printed and Published on behalf of Karnataka State Open University, Mysore-570006 by Registrar (Administration)</p>	

TABLE OF CONTENTS

		Page No
BLOCK 1: INTRODUCTION TO FOOD AND NUTRITION		
Unit-1	FOOD, NUTRITION AND HEALTH	1-18
Unit-2	NUTRIENTS	19-36
Unit-3	NUTRITIONAL ASSESSMENT- ANTHROPOMETRIC, BIOCHEMICAL, CLINICAL AND DIETARY ASSESSMENTS	37-53
Unit-4	BASIC PRINCIPLES OF PLANNING DIET – RDA FOR INDIANS, FOOD GROUPS, DIETARY GUIDES AND BALANCED DIETS	54-67
BLOCK 2: PLANNING OF DIET		
Unit-5	PRINCIPLES OF PLANNING: A NORMAL DIET	68-94
Unit-6	DIETARY MODIFICATIONS	95-135
Unit-7	EATING DISORDERS AND TREATMENT	136-148
Unit-8	NUTRITION EDUCATION AND NUTRITION COUNSELING	149-186

M. Sc.
**CLINICAL NUTRITION AND
DIETETICS**

CBCS Mode

FIRST SEMESTER

MCNDDSE 1.5: HUMAN NUTRITION

(Blocks -I, II and III)

MCNDDSE 1.5: HUMAN NUTRITION

COURSE DESIGN

Dr. S. Vidyashankar

Vice Chancellor
Karnataka State Open University
Mukthagangotri, Mysore-570006

Prof. Ashok Kamble

Dean (Academic)
Karnataka State Open University
Mukthagangotri, Mysore-570006

COURSE CO-ORDINATOR

Dr. Hemalatha M.S.

Chairperson, Department of Food Science and Nutrition
Karnataka State Open University, Mukthagangothri, Mysore-570006

COURSE WRITERS

NAME	COURSE	BLOCKS	UNITS
Dr. Shyamala B.N. Department of Food Science and Nutrition, Yuvaraja's College, UOM, Mysuru	MCNDDSE 1.5	Block I Block III	1, 2, 3, 4, 5, 10, 11, 12, 13 & 14
Dr. Anitha C DOS&R in Food Science and Nutrition, KSOU, Mysuru	MCNDDSE 1.5	Block II	6,7, 8 & 9

COURSE EDITORS

Dr. Vanitha Reddy Department of Nutrition and Dietetics JSSAHER, Agrahara, Mysuru	MCNDDSE 1.5	Block I Block II	1,2,3,4,5,6 &7
Dr. Sushma B.V Department of Nutrition and Dietetics JSSAHER, Agrahara, Mysuru	MCNDDSE 1.5	Block II Block III	8, 9, 10, 11, 12, 13 & 14
Dr. Hemalatha M.S. DOS&R in Food Science and Nutrition, KSOU, Mysuru	MCNDDSE 1.5	Block I Block II Block III	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 & 14

SLM Editorial Committee

Dr. Nataraju A Chairman, Department of Biochemistry, KSOU, Mysore	Chairman
Dr. Hemalatha M.S. Chairperson, Department of Food Science and Nutrition, KSOU, Mysore	Member & Convener
Dr. Anitha C. Assistant Professor, Department of Food Science and Nutrition KSOU, Mysore	Member
Dr. Shekara Naik R. Professor, Department of Food Science and Nutrition YCM, UOM, Mysore	Member

PUBLISHER	
------------------	--

The Registrar

Karnataka State Open University,
Mukthagangotri, Mysore-570006

Developed by Academic Section, KSOU, Mysore.

Karnataka State Open University (KSOU), 2022

All rights reserved. No part of this work may be reproduced in any form, by mimeograph or any other means, without permission in writing from Karnataka State Open University.

Further information on the Karnataka State Open University Programmes may be obtained from the University's Office at Mukthagangotri, Mysore-570006

Printed and Published on behalf of Karnataka State Open University, Mysore-570006 by

Registrar (Administration)

TABLE OF CONTENTS

		Page No
Block I - Body Composition and Energy Requirements		
Unit-1	Techniques for measuring body composition	1-15
Unit-2	Body compositional changes in life cycle	16-29
Unit-3	Energy requirement	30-44
Unit-4	Energy metabolism and physical performance	45-57
Unit-5	Regulation of Food Intake	58-73
Block II - Macronutrients		
Unit-6	Carbohydrates	74-99
Unit-7	Proteins	100-133
Unit-8	Lipids	134-157
Unit-9	Dietary Fibre	158-174
Block III - Micronutrients		
Unit-10	Fat soluble vitamins	175-187
Unit-11	Water soluble vitamins	188-201
Unit-12	Macro minerals	202-213
Unit-13	Micro minerals	214-227
Unit-14	Water and electrolytes	228-245