

2. PROGRAM EDUCATION OBJECTIVES (PEOs)

The overall objective of the learning outcome-based curriculum framework (LOCF) for BSc.Clinical Nutrition and Dietetics Program are as follows:

PEO No.	Education Objective
PEO 1	Students will be able to use their fundamental knowledge and clinical competence in various scientific aspects of food as and when required to achieve professional excellence.
PEO 2	Students will demonstrate strong and well defined clinical / practical skills in understanding the functions and role of nutrients their requirements and effects of deficiency, excess and importance of nutrients in recommended dietary allowances.
PEO 3	Students will be able to practice the profession with highly professional and ethical attitude, strong communication skills, and to work in an interdisciplinary team so as to translate the science of nutrition in health and diseases into practical information.
PEO 4	Students will be able to use interpersonal and collaborative skills to identify, assess and formulate problems and execute the solution to assess nutritional status of individuals in various life-cycle stages and determine nutrition- related conditions and diseases by applying knowledge of metabolism and nutrient functions, food sources, and physiologic systems.
PEO 5	Students will be able to imbibe the culture of research, innovation, entrepreneurship and incubation through evidence-based medical nutrition therapy.
PEO 6	Students will be able to participate in lifelong learning process for a highly productive career and will be able to relate the concepts of trends and issues in the discipline of nutrition, and translate this information into education, and training program towards serving the cause of the society.



3. GRADUATE ATTRIBUTES

S No.	Attribute	Description
1	Professional Knowledge	Demonstrate scientific knowledge and understanding to work as a health care professional
2	Clinical / Laboratory / practical skills	Demonstrate Clinical / practical skills in order to implement the preventive, assessment and management plans for quality health care services
3.	Communication	Ability to communicate effectively and appropriately in writing and orally to patients/clients, care-givers, other health professionals and other members of the community
4.	Cooperation/Teamwork	Ability to work effectively and respectfully with interdisciplinary team members to achieve coordinated, high quality health care
5.	Professional ethics	Ability to identify ethical issues and apply the ethical values in the professional life
6.	Research / Innovation-related Skills	A sense of inquiry and investigation for raising relevant and contemporary questions, synthesizing and articulating.
7.	Critical thinking and problem solving	Ability to think critically and apply once learning to real-life situations
8.	Reflective thinking	Ability to employ reflective thinking along with the ability to create the sense of awareness of one self and society
9.	Information/digital literacy	Ability to use ICT in a variety of learning situations
10.	Multi-cultural competence	Ability to effectively engage in a multicultural society and interact respectfully
11.	Leadership readiness/qualities	Ability to respond in an autonomous and confident manner to planned and uncertain situations, and should be able to manage themselves and others effectively
12.	Lifelong Learning	Every graduate to be converted into lifelong learner and consistently update himself or herself with current knowledge, skills and technologies. Acquiring Knowledge and creating the understanding in learners that learning will continue throughout life.

4.QUALIFICATION DESCRIPTORS:

- a) Demonstrate (i) a fundamental and systematic knowledge and understanding of an academic field of study as a whole and its applications, and links to related disciplinary areas/subjects of study; including a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of Clinical Nutrition and Dietetics (ii) Procedural knowledge that creates different types of professionals related to the Clinical Nutrition and Dietetics, including research and development, teaching and in government and public service; (iii) Professional and communication skills in the domain of Clinical Nutrition and Dietetics, including a critical understanding of the latest developments, and an ability to use established techniques in the domain of Clinical Nutrition and Dietetics.
- b) Demonstrate comprehensive knowledge about Clinical Nutrition and Dietetics, including current research, scholarly, and/or professional literature, relating to essential and advanced learning areas pertaining to the Clinical Nutrition and Dietetics field of study, and techniques and skills required for identifying problems and issues.
- c) Demonstrate skills in i) identifying the issues in health care needs; ii) collection of quantitative and/or qualitative data relevant to client's needs and professional practice; iii) analysis and interpretation of data using methodologies as appropriate for formulating evidence-based hypotheses and solutions
- d) Use knowledge, understanding and skills for critical assessment of a wide range of ideas and complex problems and issues relating to the Clinical Nutrition and Dietetics
- e) Communicate appropriately with all stakeholders, and provide relevant information to the members of the healthcare team
- f) Address one's own learning needs relating to current and emerging areas of study, making use of research, development and professional materials as appropriate, including those related to new frontiers of knowledge
- g) Apply one's disciplinary knowledge and transferable skills to new/unfamiliar contexts and to identify and analyse problems and issues and seek solutions to real-life problems.



5. PROGRAM OUTCOMES (POs):

After successful completion of Bachelor / BSc Clinical Nutrition and Dietetics program students will be able to:

PO No.	Attribute	Competency
PO 1	Professional knowledge	Possess and acquire scientific knowledge to work as a health care professional
PO 2	Clinical/ Technical skills	Demonstrate and possess clinical skills to provide quality health care services
PO 3	Team work	Demonstrate team work skills to support shared goals with the interdisciplinary health care team to improve societal health
PO 4	Ethical value & professionalism	Possess and demonstrate ethical values and professionalism within the legal framework of the society
PO 5	Communication	Communicate effectively and appropriately with the interdisciplinary health care team and the society
PO 6	Evidence based practice	Demonstrate high quality evidence-based practice that leads to excellence in professional practice
PO 7	Life-long learning	Enhance knowledge and skills with the use of advancing technology for the continual improvement of professional practice
PO 8	Entrepreneurship, leadership and mentorship	Display entrepreneurship, leadership and mentorship skills to practice independently as well as in collaboration with the interdisciplinary health care team



6. COURSE STRUCTURE, COURSE WISE LEARNING OBJECTIVE, AND COURSEOUTCOMES (COs)

SEMESTER - I

Course Code	Course Title	Credits Distribution (L, T, P, CL are hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
ANA1303	Anatomy	3	-	-	-	3	30	70	100
PHY1303	Physiology	2	-	-	-	2	30	70	100
CSK1501	Communication Skills	2	-	-	-	2	100	-	100
EIC1501	Environmental Science & Indian Constitution	2	-	-	-	2	100	-	100
CND1301	Fundamentals of Food and Nutrition -I	3	1	-	-	4	50	50	100
CND1302	Fundamentals of Food and Nutrition Practical - I	-	-	6	12	7	100	-	100
Total		12	1	6	12	20	410	190	600

NOTE: ESE for ANA1303 & PHY1303 will be conducted for 50 marks and normalized to 70 marks for grading.

ESE for CND1301 will be conducted out of 100 and normalized to 50 marks.

A student needs to complete computer course offered by the Swayam/ Coursera course by the end of first semester.

SEMESTER - II

Course Code	Course Title	Credits Distribution (L, T, P, CL are hours/ week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
BIC1401	Biochemistry	3	-	-	-	3	30	70	100
CND1401	Fundamentals of Food and Nutrition - II	3	1	-	-	4	50	50	100
CND1402	Food Science - I	3	1	-	-	4	50	50	100
CND1403	Fundamentals of Food and Nutrition Practical - II	-	-	4	9	5	100	-	100
CND1404	Analysis in Food Science - I	-	-	4	6	4	100	-	100
Total		9	2	8	15	20	330	170	500

NOTE: ESE for BIC1401 will be conducted for 50 marks and normalized to 70 marks for grading. ESE for CND1401, CND1402 will be conducted out of 100 and normalized to 50 marks.

A student needs to complete a life skill training course offered by the university by the end of first year.



SEMESTER - III

Course Code	Course Title	Credits Distribution (L, T, P, CL are hours/week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
MCB2303	Microbiology	3	-	-	-	3	30	70	100
CND2301	Medical Nutrition Therapy - I	3	1	-	-	4	50	50	100
CND2302	Food Science - II	2	-	-	-	2	50	50	100
CND2303	Clinical Practice in Medical Nutrition Therapy- I	-	-	4	6	4	100	-	100
CND2304	Analysis in Food Science - II	-	-	4	6	4	100	-	100
*** ****	Open Elective - I	-	-	-	-	3	-	-	S/NS
Total		8	1	8	12	20	330	170	500

NOTE: ESE for MCB2303 will be conducted for 50 marks and normalized to 70 marks for grading.
ESE for CND2301 will be conducted out of 100 and normalized to 50 marks.

SEMESTER - IV

Course Code	Course Title	Credits Distribution (L, T, P, CL are hours/ week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
BST3401	Biostatistics & Research Methodology	3	-	-	-	3	30	70	100
GPY2401	General Psychology	2	-	-	-	2	30	70	100
CND2401	Medical Nutrition Therapy - II	3	1	-	-	4	50	50	100
CND2402	Food Quality Control	3	1	-	-	4	50	50	100
CND2403	Clinical Practice in Medical Nutrition Therapy - II	-	-	4	6	4	50	50	100
CND2404	Program Elective - I Nutrition for Special Children	3	-	-	-	3	50	50	100
CND2405	Program Elective - I Nutrition & Entrepreneurship								
Total		14	2	4	6	20	260	340	600

NOTE: ESE for BST3401 will be conducted for 100 marks and normalized to 70 marks for grading.
ESE for CND2401 and CND2402 will be conducted out of 100 and normalized to 50 marks.
ESE for GPY2401 will be conducted for 50 marks and normalized to 70 marks for grading.

SEMESTER – V

Course Code	Course Title	Credits Distribution (L, T, P, CL are hours/ week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
CND3301	Nutrition in Critical Care	3	1	-	-	4	50	50	100
CND3302	Clinical Nutrition through life Cycle - I	3	1	-	-	4	50	50	100
CND3303	Dietetics and Counselling	3	-	-	-	3	50	50	100
CND3304	Therapeutic Practice in Critical Care Nutrition & Life Cycle - I	-	-	4	12	6	100	-	100
*** ****	Open Elective - II	-	-	-	-	3	-	-	S/NS
Total		9	2	4	12	20	250	150	400

NOTE: ESE for subjects CND3301, CND3302, CND3303 will be conducted out of 100 and normalized to 50 marks.

SEMESTER - VI

Course Code	Course Title	Credits Distribution (L, T, P, CL are hours/ week)					Marks Distribution		
		L	T	P	CL	CR	IAC	ESE	Total
CND3401	Clinical Nutrition through Life Cycle - II	3	-	-	-	3	50	50	100
CND3402	Food Preservation	2	-	2	-	3	50	50	100
CND3403	Community Nutrition	3	-	-	-	3	50	50	100
CND3404	Therapeutic Practice in Nutrition through Life Cycle - II	-	-	2	9	4	50	50	100
CND3405	Clinical Practice in Community Nutrition	-	-	4	6	4	100	-	100
CND3406	Program Elective - II Nutritional Consideration during Disasters	3	-	-	-	3	50	50	100
CND3407	Program Elective - II Eating Behavior								
Total		11	-	8	15	20	350	250	600

NOTE: ESE for subjects CND3401, CND3402 and CND3403 will be conducted out of 100 and normalized to 50 marks.

Open elective is credited, choice-based and is graded as satisfactory / not satisfactory (S/NS). Students make a choice from pool of electives offered by MAHE institution / Online courses as approved by the department

SEMESTER - VII and VIII

Rotatory Internship (1 year, 48 hours/week)

Semester VII	Internship - I	Duration 6 months 48 hours in a week / 8 hours in a day
Semester VIII	Internship - II	Duration 6 months 48 hours in a week / 8 hours in a day

OVERALL CREDIT DISTRIBUTION

Semester	Credit distribution					Marks Distribution		
	L	T	P	CL	CR	IAC	ESE	Total
SEMESTER - I	12	1	6	12	20	410	190	600
SEMESTER - II	9	2	8	15	20	330	170	500
SEMESTER - III	8	1	8	12	20	330	170	500
SEMESTER - IV	14	2	4	6	20	260	340	600
SEMESTER - V	9	2	4	12	20	250	150	400
SEMESTER - VI	11	-	8	15	20	350	250	600
SEMESTER - VII	-	-	-	48	NA	-	-	-
SEMESTER - VIII				48	NA	-	-	-
Grand Total	63	8	38	168	120	1930	1270	3200