S.M.PATEL COLLEGE OF HOME SCIENCE
(AN AUTONOMOUS INSTITUTE AFFILIATED WITH SARDAR PATEL UNIVERSITY)
(NEP-2020) Semester: III
Syllabus with effect from: 2024-2025
M.Sc (Home Science) in Public Health and Nutrition

Sr. No.	Core/Elective	Course No	Title	T/P	Credits Per Week	Contact hrs/ week	Exam Duration in hrs	Marks		
								Internal	External	Total
Core Course										
1	C	PHA03CPHN01	Epidemeology of Non-Communicable disease and Demography	T	4	4	2 ½	50/18	50/18	100/36
2	C	PHA03CPHN02	Public Health and Food Policy	T	2	2	1 ½	25/9	25/9	50/18
3	C	PHA03CPHN03	Nutrition/Health Program Design	T	2	2	1 ½	25/9	25/9	50/18
4	C	PHA03CPHN04	Dissertation	P	4	8	3	100/36	-	100/36
5	C	PHA03CPHN05	Internship	P	6	12	-	75/27	75/27	150/54
Elective Course (Any One)										
6	E	PHA03ESCW01	Scientific writing	T	2	2	1 ½	25/9	25/9	50/18
7	E	PHA03EPRM02	Project Management	T	2	2	1 ½	25/9	25/9	50/18
8	E	PHA03EPHE03	Public Health Environment	T	2	2	1 ½	25/9	25/9	50/18
			Total		**20**	**30**		**375**	**125**	**500**

Note : 1) : C- Core course, E- Elective course

Course Code	PHA03CPHN01	Title of the Course	Theory-Epidemiology of Non-communicable Diseases and Demography
Total Credits of the Course	04	Hours per Week	04

Course Objectives	1. To deepen students' knowledge of the epidemiology of major non-communicable diseases by examining risk factors, global trends, and their impact on public health. 2. To equip students with the skills to critically evaluate epidemiological studies and methodologies related to NCDs 3. To develop the ability to design, implement, and evaluate evidence-based strategies for the prevention, control, and management of NCDs. 4. To apply demographic techniques to assess population trends, including fertility, mortality, migration, and aging. 5. To analyze the impact of demographic changes on the prevalence and distribution of NCDs.

Unit	Course Content	Weightage* (%)
1.	Foundations of NCD Epidemiology and Demography (a) Introduction to NCDs: Definitions, burden, and key examples (CVDs, diabetes, cancer, chronic respiratory diseases). (b) Demography: Population structure, demographic transitions, and implications for NCDs. (c) Measuring NCD burden: Prevalence, incidence, mortality, DALYs, and QALYs. (d) Global epidemiological trends: Key findings from the Global Burden of Disease (GBD) Study.	20
2.	Risk Factors and Determinants of NCDs (a) Modifiable vs. non-modifiable risk factors: Age, gender, genetics, and lifestyle behaviours. (b) Behavioural determinants: Tobacco, alcohol, diet, and physical activity. (c) Environmental and social determinants: Urbanization, pollution, socioeconomic status, and health inequities. (d) The role of epigenetics in NCD risk. (e) Advances in research on multi-morbidity and clustering of risk factors.	20

3.	NCDs in India and the global scenario (a) Surveillance systems: STEPS, BRFSS, and other global NCD monitoring programs. (b) The role of artificial intelligence (AI) in NCD prediction and surveillance. (c) Primary, secondary, and tertiary prevention strategies. (d) Population-based interventions: Tobacco control policies, sugar taxes, and urban planning for health. (e) Advances in personalized medicine and precision public health for NCD prevention.	20
4.	Management and Control of NCDs (a) Integrated care models for NCDs. (b) National and global strategies for control of NCDs viz. Obesity, Diabetes, cardiovascular diseases, hypertension, Asthma, COPD, Musculo-skeletal conditions, cancer, Mental Health etc. (c) Innovative health technologies: Mobile health (mHealth), telemedicine, and wearable devices. (d) Health system strengthening to address NCDs in low- and middle-income countries. (e) Cost-effectiveness analysis of NCD interventions. (f) Global health initiatives: WHO NCD Global Action Plan and SDG targets.	20
5.	Emerging Challenges and Future Directions (a) Climate change and NCDs: Heat stress, air pollution, and food security. (b) The double burden of disease in developing countries: Addressing NCDs alongside infectious diseases. (c) Ethical considerations in NCD research and policymaking. (d) Trends in aging populations and implications for NCD care. (e) Future directions: Technological advancements and global health collaborations.	20

Teaching-Learning Methodology	Lecture, Questions-Answer, Group Discussion, Brainstorming, Observational method, Use of ICT, Assignment and presentation

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written Examination (As per R.AUG.HSC.-4)	25%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance (As per R.AUG.HSC.-7)	25%
3.	Semester End Examination	50%

Course Outcomes: Having completed this course, the students will be able to:	
1.	Understand the relationship between population dynamics and the burden of NCDs.
2.	Evaluate the impact of socio-environmental factors on NCD outcomes.
3.	Critique existing NCD surveillance frameworks and propose improvements.
4.	Examine the challenges of managing NCDs in diverse healthcare systems.

References	
Sr. No	References
1.	WHO report on *Global action plan for the reduction of non-communicable diseases*,2013, Geneva
2.	McQueen, D. V. (Ed.). (2013). *Global handbook on non-communicable diseases and health promotion*. Springer Science & Business Media.
3.	*Nutrition in Public Health. Principles, policies and practice*. 2nd edition, Arlene spark, Lauren M Dinour Janel Obenchain. CRC press, Taylor & Francis group, USA, ISBN 13:978-4987-6661-6, 2015.
4.	Oleckno, W. A. (2008). *Epidemiology: concepts and methods*. Waveland Press.

On-line resources to be used if available as reference material
On-line Resources
Relevant entries on Wikipedia and Encyclopaedia Britannica

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Course Code	PHA03CPHN02	Title of the Course	Theory -Public Health and Food Policy
Total Credits of the Course	02	Hours per Week	02

Course Objectives	1. To understand the roles and responsibilities of government departments and agencies involved in Indian agriculture and public health policy. 2. To analyze the impact of major food and nutrition programs in India on public health outcomes. 3. To evaluate the policy development and process across governmental levels in India. 4. To identify the relevance of global health and agricultural organizations to India's food and nutrition policy.

Unit	Course Content	Weightage* (%)
1.	Introduction to Public Health and Food Policy (a) Overview of public health and food policy (b) Historical context of food policy (c) Key concepts: food security, sustainability, nutrition (d) Food systems and their impact on public health outcomes	20
2.	Government Departments and Agencies, Major Food and Nutrition Programs in India (a) Government departments and agencies involved in Indian agriculture and public health policy (Ministry of Agriculture and Farmers Welfare, Ministry of Health and Family Welfare, Ministry of Consumer Affairs, Food and Public Distribution, NIN) (b) Major Food and Nutrition Programs in India(ICDS, MDM, PDS, PMMVY) (c) Policy development and process across governmental levels in India- Central, State and Local government policies and programs (d) Global health and agricultural organizations relevant to India- WHO, FAO, World Trade Organization (WTO), International Fund for Agricultural Development (IFAD), Asian Development Bank(ADB)	30

3.	Food Policy and Public Health Outcomes in India (a) Impact of food policy on nutrition-related diseases and health disparities in India (b) Role of food policy in promoting healthy food choices, in influencing the food environment and improving public health outcomes (c) successful food policy initiatives in India and and the consumer food environment (d) Challenges and opportunities for improving food policy and public health outcomes in India	25
4.	Food Policy in India, Advocacy and Global Perspectives (a) Food policy in India: National Food Security Act, Public Distribution System (b) Advocating for healthy food policy in India (c) Global perspectives on food policy and public health (d) successful food policy initiatives globally	25

Teaching-Learning Methodology	Lecture, Questions-Answer, Group Discussion, Brainstorming, Observational method, Use of ICT, Assignment and presentation

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written Examination (As per R.AUG.HSC.-4)	25%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance (As per R.AUG.HSC.-7)	25%
3.	Semester End Examination	50%

Course Outcomes: Having completed this course, the students will be able to:	
1.	Describe the organizational structure and functions of government departments and agencies involved in Indian agriculture and public health policy.
2.	Analyze the strengths and weaknesses of major food and nutrition programs in India and their impact on public health outcomes.
3.	Explain the policy development and process across governmental levels in India and identify opportunities for improvement.
4.	Discuss the relevance of global health and agricultural organizations to India's food and nutrition policy and identify potential areas of collaboration.

References	
Sr. No	References
1	Per Pinstrup-Andersen (2002) *Food Policy for Developing Countries* 1st edition, Cornell University Press.
2	Venkatesh Mannar (2017) *Public Health and Nutrition in Developing Countries,* 1st edition, CRC Press.
3	Suresh Chandra Babu (2013) *Food and Nutrition Policy in India*, 1st edition, Academic Foundation.
4	Arun Kumar Sharma (2018). *Public Health Nutrition in India* ,1st edition, Jaypee Brothers Medical Publishers
5	Ramesh Chand (2017) *Food Security and Sustainable Agriculture in India*,1st edition, Sage Publications India.

On-line resources to be used if available as reference material
On-line Resources
Relevant entries on Wikipedia and Encyclopaedia Britannica

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S. M PATEL COLLEGE OF HOME SCIENCE
(AN AUTONOMOUS INSTITUTE AFFILIATED WITH SARDAR PATEL UNIVERSITY)
Master Programme (Two Years) Self-Finance
(Under NEP 2020) Semester-III
Syllabus with effect from: 2024-2025
M.Sc in Public Health and Nutrition

Course Code	PHA03CPHN03	Title of the Course	Theory – Nutrition/Health Program Design
Total Credits of the Course	02	Hours per Week	02

Course Objectives	1. To understand the principles of nutrition programme management for national development. 2. To gain insights for needs assessment, goals setting , activity planning, budgeting and evaluation.

Unit	Description	Weightage%
1	An introduction to Nutrition program management and planning: a) Concept and Principles of management of management and approaches to management b) Theoretical foundations c) Characteristics of good programme manager d) Programme planning and its definition	25
2	Nutrition Program planning process a) Community need assessment and Defining the problems b) Planning interventions -resource mapping, budgeting and funding, centralised V/s decentralised planning c) Community based. Approaches used in planning – Top down versus bottom up, need-based approach, community participation, and rights based approach. Decision making d) Intersectoral convergence e) Role of NITI aayog in development of health and nutrition programs,	25
3	Implementation, and Evaluation for Nutrition/ Health Programs - a) Points to keep in mind for implementing the programme b) Training, supervision and coordination, c) Managing space, money, time, personnel, transport etc. d) Cost benefits, cost effectiveness and cost efficiency concepts e) Types of evaluation- principles of evaluation and types- Process, impact and outreach evaluation	25

4	Monitoring and Management Information Systems (MIS) a) Concept of monitoring and its importance b) Ways of monitoring c) Existing Monitoring system in ICDS and other national health programmes d) MIS system and its need for effective programme management	25

Teaching-Learning Methodology	The course will be delivered through a combination of active learning strategies. These will include: Discussion, lecture etc.

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written Examination (As per R.AUG.HSC. -4**)**	25%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	25%
3.	Semester End Examination (As per R.AUG.HSC. -7)	50%

References	
Sr. No	References
1.	L. Michele Issel. *Health Program Planning and Evaluation: A Practical, Systematic Approach for community health*. Edition-2nd, Jones and Bartlett publisher, Sudbury, massachussetts.
2.	Thomas C. Timmerck. *Planning, Program Development, and Evaluation: A Handbook for Health promotion, aging and health services*. Edition-2nd, Jones and Bartlett publisher, Sudbury, Massachussetts.
3.	Boni C Hodges. *Assessment and Planning in Health Programs*. Edition-2nd, Jones and Bartlett publisher, Sudbury, massachusset
4.	*Management of Nutrition Programmes and Projects* – module 4 WHO 1998

Course Outcomes: Having completed this course, the learner will be able to	
Sr. No.	After completing this course, students will be able :
1.	To learn the process of implementation of programs

2.	To learn importance of monitoring of programmes for effective implementation of the programmes.

On-line resources to be used if available as reference material
On-line Resources
Relevant entries on Wikipedia and Encyclopaedia Britannica

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Course Code	PHA03CPHN04	Title of the Course	Practical-Dissertation
Total Credits of the Course	04	Hours per Week	08

Course Objectives	1. To develop skills to collect review of literature in their selected field. 2. To plan and design a research proposal specifying objectives, rationale and methodology etc.

	Description
1.	Review latest literature available to understand problems/scenario in public health nutrition.
2.	Identify strategies, tools, or knowledge that can enhance the quality, effectiveness of health and nutrition system or disease control programme.
3.	Formulate a research plan and develop tool and standardize, pre-test or validate tools and techniques.
4.	Presentation of Research plan having following details at the end of the semester- (a) Title (b) Review of literature (c) Rationale of study (d) Hypothesis (e) Research design (f) Timeline of study

Teaching-Learning Methodology	The course will be delivered through a combination of active learning strategies. These will include: Discussion, lecture etc

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Research Proposal and Presentation	100%

Course Outcomes: Having completed this course, the learner will be able to	
Sr. No.	
1.	The students will develop skills to evaluate the information in the field of current nutrition situation/public health nutrition.
2.	The students will be able to design a research plan based on research techniques.
3.	The students will be able to plan independent research programme.

References	
Sr. No	References
1.	Journal in Public Health Nutrition, Cambridge University Press
2.	Journal of Public Health and Nutrition
3.	Journal of Health population and Nutrition , BMC
4.	Journal of public health and Nutrition, The Nutrition Society of India

On-line resources to be used if available as reference material
On-line Resources
Relevant entries on Wikipedia and Encyclopaedia Britannica

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Course Code	PHA03CPHN05	Title of the Course	Practical-Internship
Total Credits of the Course	06	Hours per Week	12

Course Objectives	1. To provide practical exposure to real-world scenarios in Resource Management and Design Application. 2. To bridge the gap between academic learning and professional practice by engaging with industry or institutional environments. 3. To develop critical skills such as project management, teamwork, and problem-solving in a professional setting. 4. To enable students to apply theoretical knowledge to practical challenges in diverse domains of resource management and design. 5. To enhance communication, networking, and professional ethics through hands-on experience.

1.	Pre-Internship Preparation (1 Week): (a) Understanding the objectives and expectations of the internship program. (b) Preparation of an Internship Proposal, including learning goals and desired outcomes. Orientation on professional ethics, organizational culture, and communication strategies.
2.	On-Site Internship (4 Weeks): (a) Practical exposure to organizational functions, workflows, and processes. (b) Working under supervision on tasks/projects related to Public Health Nutrition (c) Active participation in meetings, planning sessions, or design activities. (d) Regular documentation of daily activities and learning's in a logbook.
3.	Post-Internship Reflection and Reporting (1 Week): (a) Submission of a detailed Internship Report, including: i. Objectives achieved. ii. Description of tasks and responsibilities undertaken. iii. Challenges faced and how they were addressed. iv. Learning's and recommendations. (b) Presentation and viva-voce before a faculty panel to share key experiences and insights.

Teaching-Learning Methodology	Lecture, Questions-Answer, Group Discussion, Brainstorming, Observational method, Use of ICT, Assignment and presentation

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Report Writing	40%
2.	Internal Viva -Voce	10%
3.	External (Attendance, Performance, Punctuality, Adhering to hours by the External Supervisor)	50%

Guidelines for Students:

1. Internship Placement**:** Students can choose organizations in sectors such as NGOs, government agencies, or other relevant domains. Placement assistance will be provided if required.
2. Attendance: Full-time participation at the internship site for 1 month is mandatory.
3. Code of Conduct: Students must adhere to the professional code of conduct at the organization.
4. Supervisor Evaluation**:** On-site supervisors will provide performance feedback that will contribute to the overall assessment.

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Course Code	PHA03ESCW01	Title of the Course	Theory –Scientific Writing
Total Credits of the Course	02	Hours per Week	02

Course Objectives	1. To equip students with the skills for writing scientific documents, including research papers proposal thesis and reports. 2. To familiarize students with the conventions and ethics of scientific communication. 3. To enhance understanding of the structure and elements of scientific writing for effective dissemination of the knowledge. 4. To develop critical analysis, editing and formatting skills for professional documents.

Unit	Description	Weightage%
1	Fundamentals of Scientific Writing (a) Importance and scope of scientific writing (b) Types of scientific documents: Research papers, thesis, dissertations, reports and proposal. (c) Key elements o scientific writing: Clarity, coherence, conciseness and precision. (d) Understanding target audience and purpose.	25
2	Structure and Content Development (a) Components of scientific documents: Title, abstract, introduction, methods, results, discussion and references. (b) Developing logical flow: Linking ideas and paragraphs. (c) Use of visuals: tables, graphs and figures. (d) Writing style: passive vs Active voice, tense usage.	25
3	Research Integrity and ethics (a) Understanding Plagiarism and its implication (b) Citations styles (c) Ethics in publishing: authorship, conflict of interest and peer review process.	25
4	Advanced Writing Skills and publication Process (a) Writing proposals for funding agencies and ethical clearance. (b) Preparing manuscripts for submission to journals (c) Communicating with editors and responding to reviewers comments	25

	(d) Open access publishing and predatory journals: identifying credible platforms.	

Teaching-Learning Methodology	The course will be delivered through a combination of active learning strategies. These will include: Discussion, lecture etc.

Evaluation Pattern		
Sr. No.	Details of the Evaluation	Weightage
1.	Internal Written Examination (As per R.AUG.HSC. -4**)**	25%
2.	Internal Continuous Assessment in the form of Quizzes, Seminars, Assignments, Attendance	25%
3.	Semester End Examination (As per R.AUG.HSC. -7)	50%

Course Outcomes: Having completed this course, the learner will be able to	
Sr. No.	After completing this course, students will be able :
1.	Write structured and concise scientific documents following academic and professional standards.
2.	Demonstrate ethical consideration in publishing and citing sources.
3.	Develop research proposal and utilize advance tools and software for editing, references and plagiarism check

References	
Sr. No	References
4.	Day, R.A., & Gastel, B *how to write and publish scientific paper*. Cambridge University Press.
5.	Booth, W.C., Colomb, G.G., & Williams, J.M. *The craft of Research*. University of Chicago press.

On-line resources to be used if available as reference material
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