



Interprofessional Framework for Culinary Nutrition and Culinary Medicine Competencies

Emma Stirling, Olivia Thomas, David Eisenberg and Sharon Croxford

Acknowledgements

The research team would like to thank the global experts who contributed their time and knowledge in the development of this resource:

Associate Professor Jaclyn Albin MD - Inaugural Director, UTSW's Culinary Medicine Program, University of Texas Southwestern, USA

Deanne Brandstetter MBA, RD - President 2025-2026, Academy Nutrition and Dietetics, USA

Ghislaine Challamel - Senior Advisor, Teaching Kitchen Collaborative, USA

Lynn Fredericks - Founder, FamilyCook Productions, USA

Ben Gill APD - Lecturer in Culinary Nutrition, Australian Catholic University, Australia

Dr Fiona Lavelle RD - Lecturer in Nutritional Sciences, King's College, UK

Dr Jennifer Massa RD - Lead Research Scientist, Nutrition, Harvard T.H. Chan School of Public Health, USA

Professor Donna Pendergast - Director Engagement, Griffith University, Australia

Leah Pryor - Executive Chef Manager, Nutrition Services, University of Vermont, USA

Millete Siler RD Culinary Dietitian & Co-Founder Culinary Medicine, University of Texas Southwestern, USA

About this resource

The purpose of this resource is to provide guidance on competencies required for interprofessional practice in culinary nutrition (CN) and culinary medicine (CM). It was developed through expert consensus via a collaborative research project at Australian Catholic University (ACU). ACU has an extensive curriculum in culinary nutrition including short courses, microcredentials, undergraduate units and the interprofessional Graduate Certificate in Culinary Nutrition Science.

The research team included:

Emma Stirling AdvAPD

Emma is a Fellow of Dietitians Australia and the Culinary Nutrition Practice Lead in the Faculty of Health Sciences at ACU.

Professor Sharon Croxford APD

Sharon is a dual qualified chef and dietitian and Discipline Lead of Nutrition, Dietetics and Public Health in the Faculty of Health Sciences at ACU.

Olivia Thomas RD

Olivia is Director of Nutrition Innovation and Implementation at Boston Medical Center that runs an innovative Teaching Kitchen model and also a PhD candidate at ACU investigating culinary sports nutrition.

Associate Professor David Eisenberg MD

David is Director of Culinary Nutrition and Adjunct Associate Professor, Department of Nutrition, Harvard T.H. Chan School of Public Health and also the Founder and Senior Advisor, Teaching Kitchen Collaborative, USA.

To the author's knowledge this is the first study to investigate an interprofessional framework with competency domains and elements for professionals delivering CN and CM. The framework includes **unique elements** grouped into **eight domains** and summarised into **guiding statements**. This framework can act as a critical prompt to consider extensive capabilities across an interprofessional team to strengthen successful design, delivery and impact in targeted CN and CM interventions. It will inform further consistent advancements, fundamental to education, research and practice in CN and CM, including multiple specific competency standards evolving for delivery of CN and CM, that will be distinct to disciplines, settings, organisations, population groups and practice areas.

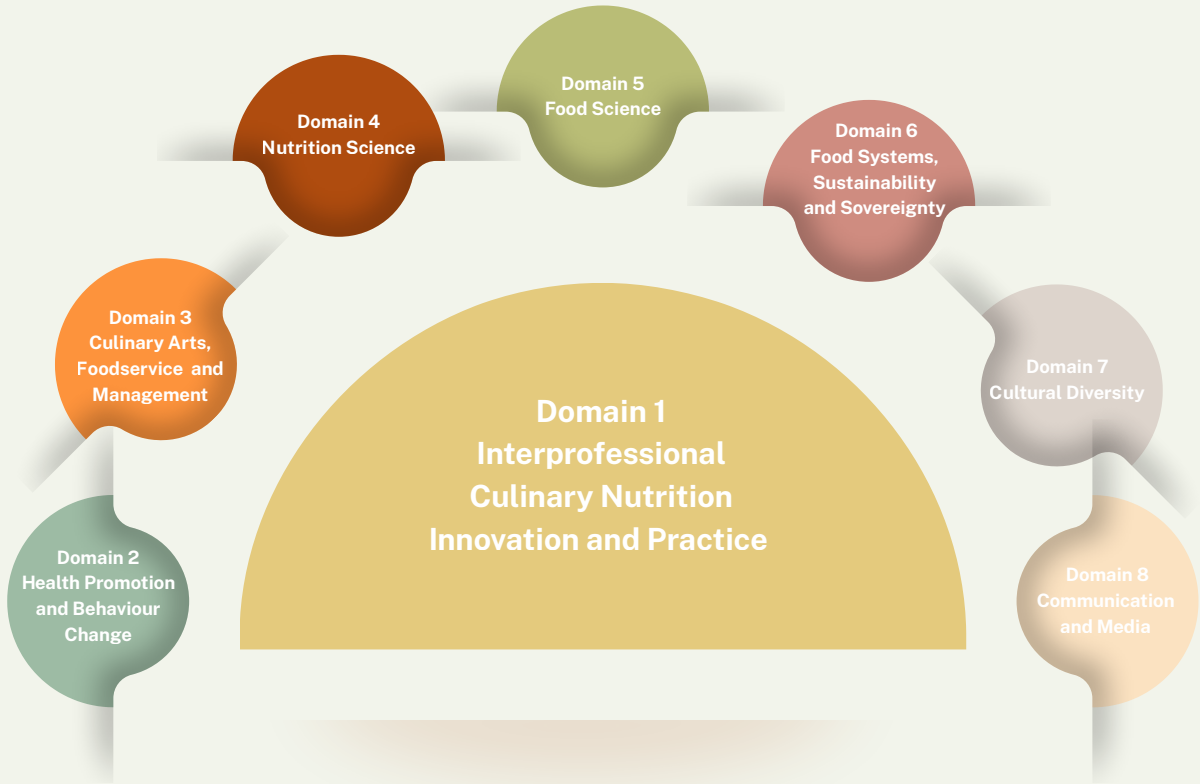


Key terms

Culinary Nutrition	The integration of culinary arts and nutrition that applies practical knowledge and skills to improve food and nutrition-related health (Croxford, 2024).	Scope of practice	"The term scope of practice (SOP) refers to the limits of a health professional's 'knowledge, skills and experience' and reflects all tasks and activities they undertake within the context of their professional role. It is important for health professionals to be aware of their own individual SOP, as well as the broader SOP for their discipline, to ensure they are practising 'safely, lawfully and effectively' and that their skill development and growth is in keeping with the expectations for their profession." (Downie, 2023).
Culinary Medicine	A health practitioner-led culinary nutrition intervention or activity (Croxford, 2024).	Theories of understanding behaviour change	Explanations of how and why behaviour change is made. General theories propose reasons for change based on a range of factors e.g. intention is critical to the Theory of Reasoned Action, inner forces i.e. self-efficacy drives change in the Social Cognitive Theory.
Culinary nutrition professional	An expert in one or more of the culinary arts, nutrition science, health, and education fields, who takes an interprofessional approach to culinary nutrition (Croxford, 2024).	Models of behaviour change	Models of making behaviour change include specific guidance for program interventions and activities to effect change and are usually underpinned by understanding behaviour change theory. The terms 'theory' and 'model' are often used interchangeably.
Culinary nutrition activity	An experiential educational activity designed to build culinary nutrition competence in individuals and groups (Croxford, 2024).	Theories of making behaviour change	A theory of change considers assumptions and risks of an intervention and identifies solutions to problems that might hinder change. It should be evidence-based, and developed in consultation with all interest-holders and be relevant to the context of the intervention.
Culinary nutrition intervention	A set of activities to support nutrition and health goals and behavior change in individuals and groups (Croxford, 2024).	Implementation frameworks	High level structure for implementation of evidence-based or informed practice that considers the complexity of practice-based interventions, understanding the barriers and facilitators of program success, and results in desired outcomes.
Food is Medicine	Food-based disease prevention and treatment integrated and personalised interventions including medically tailored meals, medically tailored groceries, produce prescription programs and nutrition and culinary education.	Food literacy	"Food literacy is the scaffolding that empowers individuals, house-holds, communities or nations to protect diet quality through change and strengthen dietary resilience over time. It is composed of a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat food to meet needs and determine intake". (Vidgen & Gallegos, 2014). Food literacy should also consider cultural, social and environmental contexts. Culinary nutrition and culinary medicine build food literacy.
Medically Tailored Meals	Meals prescribed by healthcare professionals and made for individuals to meet dietary needs to treat specific diseases, often home delivered.	Gastronomy	The art and science of all aspects of eating, from conception to post-enjoyment of a meal or food-related occasion. It encompasses elements of culture and heritage, society and community, and sharing experiences to sustainability and naturally preserving the environment.
Produce Prescription Programs	Fresh produce or vouchers for produce prescribed by healthcare professionals for individuals to improve vegetable and fruit intake and food security.	Planetary health	"The achievement of the highest attainable standard of health, well-being and equity worldwide through judicious attention to the human systems – political, economic and social – that shape the future of humanity, and the Earth's natural systems that define the safe environmental limits within which humanity can flourish." (WHO, 2021, p8).
Person-centred (culinary nutrition)	An inclusive, collaborative, tailored approach to culinary nutrition/culinary medicine that focuses on the needs, goals, preferences and safety of the individual person participating in an activity or intervention.	Traditional diets	Traditional food practices are both old and new. In order for a food to be traditional there must be continuity with the past, yet it may be influenced by the present (Croxford, 2018).
Teaching kitchen framework	A structure that has experiential learning in a kitchen as a cornerstone of food and culinary skill development in individuals in the prevention and treatment of disease and promotion of health and wellbeing.	Multi-sensory learning	"Multisensory learning is a process that consists of learning a new subject through the use of two or more senses, which may include visual, auditory, tactile or synesthetic, olfactory, and gustatory sensation." (Esplendori, 2022 as cited in Prasannakumar, 2018).

Interprofessional Framework for Culinary Nutrition (CN) and Culinary Medicine (CM) Competencies

DOMAINS



Interprofessional Framework for Culinary Nutrition (CN) and Culinary Medicine (CM) Competencies

ELEMENTS



Interprofessional Framework for Culinary Nutrition (CN) and Culinary Medicine (CM)

Competencies

GUIDING STATEMENTS

Health Promotion and Behaviour Change	Culinary Arts, Foodservice and Management	Nutrition Science	Food Science	Food Systems, Sustainability and Sovereignty	Cultural Diversity	Communication and Media
<p>2.1 Plan ethical and inclusive Culinary Nutrition Interventions and Culinary Medicine that is targeted and utilises insights from participatory action research approaches, theories and models of understanding and changing behaviour, theories of education and implementation frameworks to achieve clearly defined aims and objectives.</p> <p>2.2 Apply evidence-based frameworks and technologies to guide person-centred goal setting, self-monitoring, motivation, self- (and group) efficacy, habit change and decision-making in Culinary Nutrition Interventions.</p> <p>2.3 Design and deliver individual and group Culinary Nutrition Activity with a Teaching Kitchen framework and with Culinary Nutrition Professionals skilled in facilitating experiential learning and culinary demonstration.</p> <p>2.4 Apply knowledge of multimodal sensory perception, gastrophysics, eating environments, commensality and mindful eating and cooking techniques in Culinary Nutrition Activity.</p> <p>2.5 Critically adapt Culinary Nutrition Interventions using feedback, participation and engagement data, outcome measures, quality improvement, reflective practice and research.</p>	<p>3.1 Creatively apply principles of gastronomy to innovate ingredients, flavour science, recipes, menus, plating, food styling, and dining environments for targeted Culinary Nutrition Interventions.</p> <p>3.2 Apply traditional and novel culinary terminology, techniques of cookery and cuisines for skill development and reinforcement in Culinary Nutrition Activity.</p> <p>3.3 Design effective, creative foodservice environments for Culinary Nutrition Interventions using principles of choice architecture.</p> <p>3.4 Maintain food safety, hygiene, and sanitation in the Culinary Nutrition teaching kitchen and food and kitchen environments.</p> <p>3.5 Execute ordering, mise en place, workflow planning, budgeting, and kitchen organisation for Culinary Nutrition Activity.</p> <p>3.6 Apply for and manage funding and resources in Culinary Nutrition.</p>	<p>4.1 Apply knowledge of macronutrients, micronutrients, and bioactive components in food, human metabolism and health to Culinary Nutrition Interventions.</p> <p>4.2 Understand and apply recommended reference values for nutrients and dietary intakes, dietary guidelines, food guides and public health nutrition priorities in Culinary Nutrition Interventions.</p> <p>4.3 Develop recipes, menus and other implementation tools for health and special diets in Culinary Nutrition and Culinary Medicine.</p> <p>4.4 Address Culinary Nutrition and Culinary Medicine across the lifespan and with populations, in altered eating and diet-related disease.</p> <p>4.5 Transform recipes, menus, food intake, and dietary patterns through theoretical and analytical nutrition analysis using evidence-based criteria to inform Culinary Nutrition Activity.</p>	<p>5.1 Apply knowledge of food and kitchen chemistry, flavour science, palate development and ingredient functionality to Culinary Nutrition Activity.</p> <p>5.2 Conduct new product and recipe development through understanding of food, chemical and nutrient reactions, functional substitutions and food technologies in Culinary Nutrition Activity.</p> <p>5.3 Apply theoretical understanding of food safety theory, food preservation, food and safety-related microbiology and food fraud to Culinary Nutrition Activity.</p> <p>5.4 Incorporate insights from multimodal sensory perception, gastrophysics, and the science of pleasure, altered taste and compensatory strategies in Culinary Nutrition Interventions.</p> <p>5.5 Conduct sensory evaluation and testing of food and recipes using validated, rigorous methods in Culinary Nutrition Activity.</p>	<p>6.1 Use systems thinking and sustainability frameworks to understand elements of the food system, food regulations and governance as applied to Culinary Nutrition.</p> <p>6.2 Support ethical sourcing, sustainable procurement practices and work with farmers, producers and food artisans in Culinary Nutrition Activity.</p> <p>6.3 Advocate for food security, food justice and food sovereignty in Culinary Nutrition Interventions.</p> <p>6.4 Promote food provenance with horticulture integrated Culinary Nutrition Activity in kitchen and community gardens, sensory gardens, edible landscapes, urban farms and with Produce Prescription Programs.</p> <p>6.5 Implement strategies to maximise seasonality, reduce food waste, support the circular economy, and promote sustainable diets in Culinary Nutrition Activity.</p>	<p>7.1 Embrace cultural foodways, food heritage and traditional diets, and facilitate ways of cross-cultural exchange in Culinary Nutrition Activity.</p> <p>7.2 Adopt methods in Culinary Nutrition research to explore and track historical and current dietary acculturation.</p> <p>7.3 Use decolonising approaches to curriculum development and integration of First Nations foodways and Indigenous knowledges in Culinary Nutrition Activity.</p> <p>7.4 Apply special dietary requirements for religious and cultural diets in Culinary Nutrition Activity.</p> <p>7.5 Practice reflexivity and culturally safe care in Culinary Nutrition Interventions.</p>	<p>8.1 Design and deliver impactful, targeted, non-stigmatising trust building Culinary Nutrition campaigns with effective storytelling.</p> <p>8.2 Implement contemporary and emerging communication strategies and technologies for Culinary Nutrition translation.</p> <p>8.3 Track food, flavour, culinary and dining trends to inform targeted Culinary Nutrition Interventions.</p> <p>8.4 Craft and publish compelling Culinary Nutrition food media, proven recipes and multi-media communication.</p> <p>8.5 Create impactful Culinary Nutrition visual assets through graphic design, food styling, photography and videography.</p>
<p>1.1 Collaborate across professions, respect scope of practice, and foster a team-based approach to building competencies and practising as Culinary Nutrition Professionals.</p> <p>1.2 Integrate additional competencies that are recognised in Culinary Nutrition and/or Culinary Medicine at a discipline- or profession-specific level.</p> <p>1.3 Apply innovative, strategic planning and entrepreneurship to drive the evidence-base in Culinary Nutrition and/or Culinary Medicine research and practice.</p> <p>1.4 Demonstrate ethical and professional conduct, an understanding of past and present practice, and a commitment to continuing professional development in Culinary Nutrition and/or Culinary Medicine.</p> <p>1.5 Demonstrate leadership, engage in advocacy, and apply systems thinking in advancing Culinary Nutrition and/or Culinary Medicine.</p> <p>1.6 Critically evaluate and apply current and emerging science and share new knowledge in Culinary Nutrition and/or Culinary Medicine.</p>						

Domain 1

Interprofessional Culinary Nutrition Innovation and Practice

Domain 2

Domain 3

Domain 4

Domain 5

Domain 6

Domain 7

Domain 8

References

Recommended citation:
Stirling, E., Thomas, O., Eisenberg, D., & Croxford, S. (2025).
The Interprofessional Framework for Culinary Nutrition and Culinary Medicine Competencies.
Australian Catholic University.

Croxford, S., Stirling, E., MacLaren, J., McWhorter, J. W., Frederick, L., & Thomas, O. W. (2024). Culinary Medicine or Culinary Nutrition? Defining Terms for Use in Education and Practice. *Nutrients*, 16(5), 603. <https://doi.org/10.3390/nu16050603>

Correspondence: Principal researcher emma.stirling@acu.edu.au

Croxford, S. (2018). *Changes in culinary culture with migration and its effect on health in Turkish migrants*. La Trobe. Thesis. <https://doi.org/10.26181/21858579.v1>

Downie, S., Walsh, J., Kirk-Brown, A., & Haines, T. P. (2023). How can scope of practice be described and conceptualised in medical and health professions? A systematic review for scoping and content analysis. *The International journal of health planning and management*, 38(5), 1184–1211. <https://doi.org/10.1002/hpm.3678>

Esplendori, G. F., Kobayashi, R. M., & Püschel, V. A. de A. (2022). Multisensory integration approach, cognitive domains, meaningful learning: reflections for undergraduate nursing education. *Revista Da Escola de Enfermagem Da U S P*, 56(e20210381). <https://doi.org/10.1590/1980-220x-reeusp-2021-0381>

Vidgen, H. A. & Gallegos, D. (2014). Defining food literacy and its components. *Appetite*, 76, 50-59. <https://doi.org/10.1016/j.appet.2014.01.010>

WHO (World Health Organisation). (2021). *Health promotion glossary of terms*. <https://iris.who.int/server/api/core/bitstreams/96da8799-4938-4d66-b171-04770ed4b243/content>

Front cover image from left to right: ACU Graduate Certificate in Culinary Nutrition Science and Master of Dietetic Practice students Ashlee Milecevic, Melinda Le Sueur and Melinda Kouch.
Internal image: Ethiopian fasting plate in the ACU Teaching Kitchen