

Plant-Based Nutrition for Human & Planetary Health

Cooking for the Climate



Plant-Based Nutrition for Human & Planetary Health



Target Audience: Medical students (Years 2–4)

Format: 6–8 weeks online delivery (can be compressed into a shorter programme)
Delivered by a multi-disciplinary teaching team.

Methods:

Online lectures, case-based learning, culinary medicine practical sessions/
cookalongs, debating, community engagement with lifestyle medicine projects
(selected regions only).

Learning Objectives

By the end of the placement, students will be able to:

- 1** **Describe** the key components of a healthy and sustainable diet pattern.
- 2** **Explain** the evidence linking plant-based eating to prevention and management of chronic diseases (e.g., CVD, type 2 diabetes, cancer).
- 3** **Demonstrate** culinary medicine skills by preparing a range of environmentally friendly, culturally appropriate, nutritious and healthy plant-based meals.
- 4** **Analyse** the environmental and planetary health impacts of dietary patterns.
- 5** **Evaluate** barriers and solutions for adopting plant-based diets at individual, community, and health system levels.

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Curriculum Outline

Module 1: Planetary Health & Sustainability

- Environmental impact of dietary choices (GHG emissions, land use, communicable and zoonotic diseases, water use).
- Global nutrition guidelines and planetary boundaries; EAT Lancet planetary health diet.
- Policy and healthcare's role in promoting sustainable diets.

Activity:

Carbon footprint analysis of different diets; students design a 'climate-smart' hospital cafeteria menu using free online resources such as My Emissions:

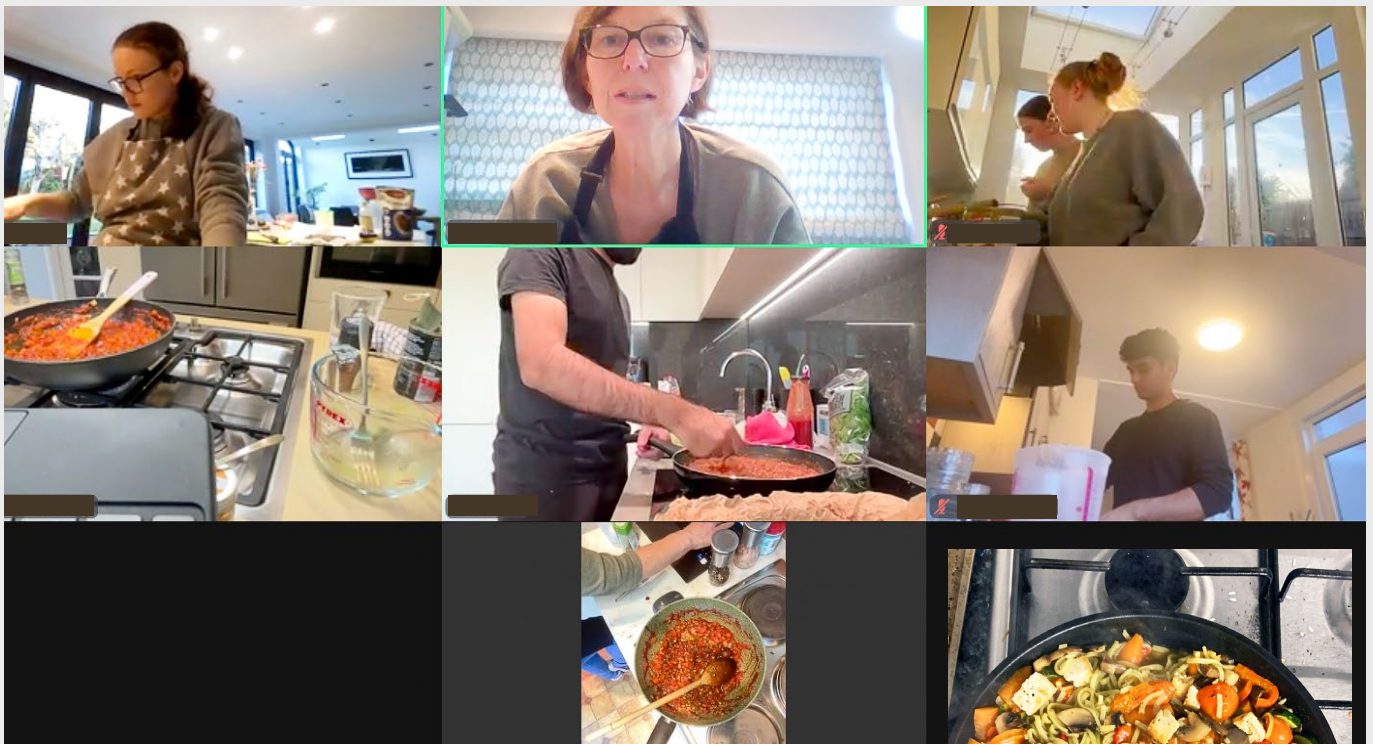
<https://myemissions.co/resources/food-carbon-footprint-calculator/>



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Module 2: Foundations of Plant-Based Nutrition

- Health benefits: epidemiological and clinical evidence.
- Myths and misconceptions about plant-based diets.
- Nutritional adequacy of plant-based diets (protein, vitamin B12, iron, omega-3 fats, calcium, vitamin D, iodine, fibre).
- Cooking demonstrations: menus vary but include whole grains, legumes, fruits and vegetables.



Activity:

Culinary medicine/cookalong. Students learn to cook healthy sustainable plant-based meals from their own kitchens.



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Module 3: Plant-Based Diets in Clinical Practice

- Evidence for plant-based diets in:
 - Cardiovascular disease
 - Diabetes and metabolic syndrome
 - Cancer prevention and survivorship
 - Gut health & the microbiome
 - Healthy weight management
- Patient-centred counselling techniques (motivational interviewing, addressing cultural food traditions).



Activity:

Case discussion on a patient with type 2 diabetes considering diet change.



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Module 4: Special Populations

- Plant-based nutrition across the lifespan (pregnancy/ breast feeding, children, older adults, athletes).
- Addressing socioeconomic and cultural considerations.
- Food access and food justice.



Trussell Trust local church food bank warehouse
ROTHERHAM, ENGLAND, UK

Activity:

Group debate. Topics are suggested but groups are encouraged to choose their own.



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Module 5: Culinary Medicine

- Advanced cooking demonstrations learning how to incorporate plant protein into menus, and how to increase fibre intake.
- Designing meal plans for real-world patient cases.
- Taste testing and recipe adaptation for cultural relevance.

Activity:

Culinary medicine/ cookalong. Students learn to cook healthy sustainable plant-based meals from their own kitchens, and the relevance to different patient groups.



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Module 6: Communication & Advocacy

- Learning how to take an adequate dietary history using validated tools.
- Communicating dietary recommendations in clinical practice and using culinary medicine in brief clinical encounters.
- Physician role in public health nutrition advocacy.

Activity:

Students write a brief 'plant-based prescription' for a hypothetical patient.

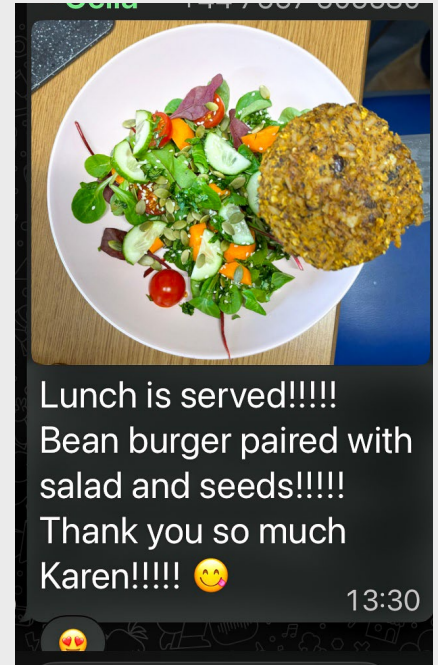
Draft a short advocacy brief on integrating plant-based diets into hospital or community health settings.



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Assessment

- Pre- and post-course questionnaire.
- Completion of online activities on Moodle elearning platform including webinars, personal reading and online learning.
- Culinary medicine Master Chef finale (prepare a three course plant-based menu, explain nutritional/ clinical rationale).
- Clinical: Case presentation, written report or poster presentation as per University requirements.



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Resources / Reading:

Textbooks

Plant Based Nutrition in Clinical Practice

Coedited by Dr Shireen Kassam, Lisa Simon RD and Dr Zahra Kassam

Eating Plant-Based. Scientific Answers to Your Nutrition Questions

By Dr Shireen Kassam and Dr Zahra Kassam

Articles

EAT-Lancet Commission report:

<https://www.thelancet.com/commissions-do/EAT-2025>

<https://lifestylemedicine.org/benefits-plant-based-nutrition/>

Cooking videos

<https://tinyurl.com/cookingfortheclimatevideos>

Dietary history and assessment tools

<https://connect.lifestylemedicine.org/viewdocument/aclm-diet-screener>

<https://www.doctorsfornutrition.org/4-leaf-survey/>

<https://medicalxpress.com/news/2024-04-unique-screening-tool-clinicians-efficiently.html>

Further online resources

<https://plantbasedhealthprofessionals.com/>

<https://www.plantbaseddata.org/>

<https://ourworldindata.org/environmental-impacts-of-food>

<https://www.youtube.com/@plantbasedhealthprofessionals>

iffs: Institute For Future Food Systems

All food photos were taken during online cooking sessions.