MODULE SPECIFICATION

Academic Year (student cohort covered by specification)	2021-22
Module Code	2442
Module Title	Nutrition Related Chronic Diseases
Module Organiser(s)	Dr Suneetha Kadiyala Co-organiser: Lucia Segovia De La Revilla
Faculty	Epidemiology & Population Health
FHEQ Level	Level 7
Credit Value	**CATS:** 15 **ECTS:** 7.5
HECoS Code	100247
Term of Delivery	Term 2
Mode of Delivery	For 2021-22 this module is currently planned as a mixture of online and face to face teaching Teaching will comprise a combination of live and interactive activities (synchronous learning) as well as recorded or self-directed study (asynchronous learning).
Mode of Study	Full-time
Language of Study	English
Pre-Requisites	A strong background in a biological science is recommended
Accreditation by Professional Statutory and Regulatory Body	None
Module Cap (indicative number of students)	35-45 (numbers may be capped)
Target Audience	This module is compulsory for MSc Nutrition for Global Health (NfGH) students. It will also be useful to students interested in health promotion sciences, health policies and the epidemiology of non-communicable diseases.
Module Description	This module provides students with an in-depth knowledge of the current evidence base relating nutrition to common chronic diseases and to assess the policy options for addressing these diseases. To develop skills of critique and interpretation through the specific perspective of nutritional epidemiology and its implications for study design.
Duration	5 weeks at 2.5 days per week
Timetabling slot	Slot D2

Last Revised (e.g. year changes approved)	September 2021

Programme(s) This module is linked to the following programme(s)	**Status**
MSc Nutrition for Global Health	Compulsory
MSc Public Health	Recommended

Module Aim and Intended Learning Outcomes

Overall aim of the module
The overall module aim is to: • Understand the key food systems and diets related risk factors to chronic diseases • Assess nutrition-related risk factors as they relate to mechanisms, epidemiology and systems • Identify, summarise and interpret a range of evidence to determine the potential priority actions in a range of contexts

Module Intended Learning Outcomes
By the end of this module, students should be able to: 1. Demonstrate a systematic understanding of the relationship between nutrition and chronic disease and the likely mechanisms involved 2. Assess the strengths and weaknesses of epidemiological methods available to assess nutrition-disease relationships 3. Critically evaluate the validity of consensus views of common nutrition-related chronic diseases through the appraisal of the epidemiological evidence 4. Critically evaluate strategies to prevent nutrition-related chronic diseases and the evidence-base required to implement policy

Indicative Syllabus

Session Content
The module is expected to include sessions addressing the following topics: • A detailed introduction to the principles of nutritional epidemiology, including key tools such in the measurement of dietary intake • A thorough discussion of the evidence base linking nutrition to major chronic diseases – cardiovascular disease, cancer, obesity, diabetes and bone health – involving talks from experts and student-led group work • An exploration of nutrition-health policy issues in relation to NCDs, including how evidence is translated into policy • Sessions on topics including genetics, physical activity and nutrition of the elderly • Throughout the module examples are taken from a variety of settings and the themes of the food system changes, nutrition transition and globalization are emphasized

Teaching and Learning

Notional Learning Hours

Type of Learning Time	Number of Hours	Expressed as Percentage (%)
Contact time	40	26.7
Directed self-study	10	6.6
Self-directed learning	40	26.7
Assessment, review and revision	60	40
Total	**150**	**100**

Student contact time refers to the tutor-mediated time allocated to teaching, provision of guidance and feedback to students. This time includes activities that take place in face-to-face contexts such as lectures, seminars, demonstrations, tutorials, supervised laboratory workshops, practical classes, project supervision as well as where tutors are available for one-to-one discussions and interaction by email. Student contact time also includes tutor-mediated activities that take place in person or in online environments, which may be synchronous (using real-time digital tools such as Zoom or Blackboard Collaborate Ultra) or asynchronous (using digital tools such as tutor-moderated discussion forums or blogs often delivered through the School's virtual learning environment, Moodle).

The division of notional learning hours listed above is indicative and is designed to inform students as to the relative split between interactive (online or on-campus) and self-directed study.

Teaching and Learning Strategy
Our module follows a science to systems approach, which guides students through key aspects of mechanism and epidemiology of NRCDs and food systems based approaches to address these challenges in various contexts . • **Lectures**: We cover each stage using a mixture of internal and guest lectures, including world-leading experts on the subject matter. • **Q&A**: The lectures cover a lot of technical content, so we provide frequent opportunities for Q&A using a mix of dialogical approaches. • **Group work**: In some sessions we have group work for students to discuss issues among themselves, facilitating peer-to-peer feedback; • **Module overview**: To help students navigate this course, we provide an overview document that gives profiles of the lecturers and key learning objectives for each session. • **Reading list**: We accompany this with a carefully curated reading list of essential and additional articles, where the essential articles provide seminal work on the session, and additional articles provide more information for the interested student. • **Assessment**: We provide several free slots to ensure that the students are able to prepare their module assessment.

Assessment

Assessment Strategy
Assessment will be based on the preparation of an individual report on an issue currently relevant to the field of nutrition-related chronic disease. This assessment will constitute 100% of the module marks.

Summative Assessment

Assessment Type	Assessment Length (i.e. Word Count, Length of presentation in minutes)	Weighting (%)	Intended Module Learning Outcomes Tested
A technical report to a policy maker. The student will be given 4 choices out of which they have to choose one for their report	2500-3000 words	100%	1-4

Resitting assessment
Resits will accord with the LSHTM's Resits Policy Resit/deferred/new attempts - the task will involve the preparation of an individual report on a different nutrition-related chronic disease issue.

Resources

Indicative reading list

- Li Y, Schoufour J, Wang DD, Dhana K, Pan A, Liu X, Song M, Liu G, Shin HJ, Sun Q, Al-Shaar L. Healthy lifestyle and life expectancy free of cancer, cardiovascular disease, and type 2 diabetes: prospective cohort study. bmj. 2020 Jan 8;368
- Loos RJ. The genetics of adiposity. Current opinion in genetics & development. 2018 Jun 1;50:86-95.
- NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in body-mass index, underweight, overweight, and obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128·9 million children, adolescents, and adults. Lancet. 2017 ;390:2627-2642.
- Mogire RM, Mutua A, Kimita W, Kamau A, Bejon P, Pettifor JM, Adeyemo A, Williams TN, Atkinson SH. Prevalence of vitamin D deficiency in Africa: a systematic review and meta-analysis.; Lancet Glob Health. 2020 Jan;8(1):e134-e142. doi: 10.1016/S2214-109X(19)30457-7. Epub 2019 Nov 27. PMID: 31786117
- Fottrell, E., Ahmed, N., Morrison, J., et al. A cluster randomised controlled trial of community groups or mobile messaging to prevent and control diabetes and intermediate hyperglycaemia in Bangladesh. Community groups or mobile phone messaging to prevent and control type 2 diabetes and intermediate hyperglycaemia in Bangladesh (DMagic): a cluster-randomised controlled trial. Diabetes & Endocrinology. 2019; 3(17):200-212.
- World Health Organisation. World Report on Ageing and Health. Geneva: WHO; 2015. http://www.who.int/ageing/events/world-report-2015-launch/en/
- Traill, W.B., Mazzocchi, M., Shankar, B. and Hallam, D., 2014. Importance of government policies and other influences in transforming global diets. Nutrition reviews, 72(9), pp.591-604.
- Biddle JHE. A randomised controlled trial to reduce sedentary time in young adults at risk of type 2 diabetes mellitus: project STAND. PLoS One. 2015;10(12). doi:10.1371/journal.pone.0143398
- McCarthy MI, Mahajan A. The value of genetic risk scores in precision medicine for diabetes. Expert Rev Precis Med Drug Dev. 2018;3(5):279-
- 281. doi:10.1080/23808993.2018.1510732
- Hu FB, Willett WC. Current and Future Landscape of Nutritional Epidemiologic Research. JAMA. 2018. Available at: https://jamanetwork.com/journals/jama/fullarticle/2712745 (Full text on webpage)

Teaching for Disabilities and Learning Differences

The module-specific site on Moodle gives students access to lecture notes and copies of the slides used during the lecture. Where appropriate, lectures are recorded and made available on Moodle. All materials posted on Moodle, including computer-based sessions, have been made accessible where possible.

LSHTM Moodle is accessible to the widest possible audience, regardless of specific needs or disabilities. More detail can be found in the Moodle Accessibility Statement which can also be found within the footer of the Moodle pages. All students have access to "SensusAccess" software which allows conversion of files into alternative formats.

Student Support Services can arrange learning or assessment adjustments for students where needed. Details and how to request support can be found on the LSHTM Disability Support pages.