

Nutrition Disorders (I002727)

Course size *(nominal values; actual values may depend on programme)*

Credits 5.0

Study time 150 h

Course offerings and teaching methods in academic year 2024-2025

A (semester 1)	English	Gent	lecture	32.5h
			group work	7.5h

Lecturers in academic year 2024-2025

Lachat, Carl	LA23	lecturer-in-charge
Dailey-Chwalibóg, Trenton	LA23	co-lecturer
Lapauw, Bruno	GE35	co-lecturer

Offered in the following programmes in 2024-2025

	crdts	offering
Master of Science in Bioscience Engineering: Food Science and Nutrition	5	A
Master of Science in Nutrition and Food Systems	5	A
Exchange Programme in Bioscience Engineering: Food Science and Nutrition (master's level)	5	A

Teaching languages

English

Keywords

Undernutrition, Anthropometry, Micro-nutrient deficiencies, Macro-nutrient deficiencies, Diet related-chronic diseases, Overnutrition

Position of the course

This course introduces the major nutritional disorders, including malnutrition, overnutrition micro-nutrient deficiencies, and, diet-related non-communicable diseases and their clinical appearance. The course also offers a public health nutrition perspective of diet and nutrition-related disorders, in vulnerable populations such as women and children. Different control strategies are discussed so that participants can select appropriate interventions.

Contents

The course is organised as 5 consecutive modules.

Module 1: Epidemiology of nutrition disorders and recommendations for healthy diets

Module 2: Nutritional status and anthropometry

Module 3: Child nutrition: feeding the young child, eating disorders, child malnutrition, and nutrition rehabilitation

Module 4: Overnutrition: hyperlipidaemia, adult-type diabetes, overweight. The importance of these diseases are discussed, causality, and strategies to alleviate them, including a brief introduction to clinical nutrition and specific diets for medical conditions.

Module 5: Nutritional deficiencies: main vitamin and mineral deficiencies (Vit A, D, Fe, I, B vitamins, vit C, Zinc) causes, clinical manifestations and strategies to address them

Group exercises will be organised on

- A critical assessment of contemporary topics and research findings
- The measurement, calculation and interpretation of anthropometric indicators
- Setting up a community-based programme for the management of acute malnutrition

Initial competences

Capacity to work in groups and basic knowledge in biochemistry, biology, statistics and human nutrition.

Final competences

- 1 Students can describe the epidemiology and public health importance of nutrition and diet-related disorders.
- 2 Students can evaluate the importance of nutrient disorders in a specific context and select an appropriate intervention to address them control of micronutrient disorders.
- 3 Students know recommendations for healthy diets and nutrition requirements of vulnerable populations
- 4 Students can set up and evaluate a nutrition rehabilitation program.
- 5 Students can describe the determinants of overweight and diabetes and explain their mechanisms.
- 6 Students can apply and interpret approaches to measure nutritional status.
- 7 Students can identify and evaluate interventions that promote nutrition in children and propose appropriate actions where necessary.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Lecture, Independent work, Peer teaching

Extra information on the teaching methods

The classes are a combination of ex-cathedra courses (34 hrs), individual assignments where a scientific paper on a relevant topic is presented (4 hrs), practical exercises on anthropometry (3hrs), and group work (3 hrs) on defining target groups and specific interventions to alleviate malnutrition within the context of health care delivery

Study material

None

References

See reference list in course notes, which are updated regularly.

Course content-related study coaching

Regular follow-up by the professors and their staff through organised 'question hours'.
Use of the electronic learning environment.

Assessment moments

end-of-term assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with multiple-choice questions, Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Written assessment with multiple-choice questions, Written assessment with open-ended questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

The exam is a written exam with open and multiple choice questions.

Calculation of the examination mark

The marks for the course are entirely based on the final exam score.
Students who eschew periodic evaluations for this course unit may be failed by the examiner.

