

## COURSE DETAIL

### METABOLISM, NUTRITION, AND EXCERCISE

**Country**

Netherlands

**Host Institution**

Maastricht University - University College Maastricht

**Program(s)**

University College Maastricht

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Health Sciences Biological Sciences

**UCEAP Course Number**

141

**UCEAP Course Suffix****UCEAP Official Title**

METABOLISM, NUTRITION, AND EXCERCISE

**UCEAP Transcript Title**

METABOLISM & HEALTH

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

This course provides students with a solid understanding of the key aspects in energy metabolism, and the effects of nutrients on (muscle) metabolism during exercise of different types. The course requires prior knowledge on some basic biochemical concepts (e.g. the structure and function of macromolecules, common forms of chemical reactions, basic cell structure, and metabolism of macromolecules). The course builds around a practical case study. With a group of students, develop a cohesive and evidence-based recommendation regarding nutrition and exercise for a client sports team. The first part of the course provides a theoretical foundation on the basics of exercise physiology and biochemistry. In the form of tutorial groups, discuss the physiology of muscles, the metabolism of macronutrients, the hormonal regulation of metabolism, the biochemical and physiological role of macro- and micronutrients in relation to exercise and fatigue, and adaptations of the body to endurance, and resistance training. You are expected to conduct a further search of the literature, as the theoretical foundation covers only part of the concepts important for developing a cohesive recommendation regarding nutrition and exercise. Prerequisite SCI2035 Biochemistry. Recommended SCI2009 Human Physiology and/or, SCI2037 Cell Biology.

### Language(s) of Instruction

English

### Host Institution Course Number

SCI3005

### Host Institution Course Title

METABOLISM, NUTRITION AND EXERCISE

### Host Institution Course Details

<https://www.maastrichtuniversity.nl/file/course-catalogue-2025-2026pdf>

### Host Institution Campus

Maastricht University

**Host Institution Faculty**

University College Maastricht

**Host Institution Degree****Host Institution Department**

Sciences

**Course Last Reviewed**

2025-2026

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