

220225433 Physiology and Metabolism of Nutrients

Module Name	Physiology and Metabolism of Nutrients
Module Level, if applicable	Intermediate
Code if Applicable	220225433
Subtitle, if applicable	-
Courses, if applicable	220225433 Physiology and Metabolism of Nutrients
Semester(s) in which the module is taught	4th
Person responsible for the module	Prof. Dr. Ir. Elfi Anis Saati, M.P.
Lecturer	Prof. Dr. Ir. Elfi Anis Saati, M.P.
Language	Indonesian
Relation to curriculum	Compulsory Course for undergraduate program in the Food Technology Department, Faculty of Agriculture and Animal Science
Type of teaching	Lecture, Project
Workload	<ul style="list-style-type: none"> • Lecture: 2 SKS X 50 minutes X 16 weeks • Project: 2 SKS x 60 minutes x 16 weeks • Independent learning: 2 SKS X 60 minutes X 16 weeks
Credit points	2 SKS X 1.5 = 3 ECTS
Requirements according to the examination regulations	<ol style="list-style-type: none"> 1. Registered in this course 2. Minimum 80% attendance in this course
Recommended prerequisites	Biochemistry
Module Objectives (Intended learning outcomes)	<p>On successful completion of this course, student should be able to :</p> <ul style="list-style-type: none"> ● Explain the basic concepts of nutrition science and the relationship between food consumption and nutritional status. ● Link food functions (nutrients and bioactive components) to human health (excess or undernutrition). ● Explain the biological role of food (nutrients and bioactive components) and the positive and negative influence of consuming food in natural and processed forms on health.

Module Content	This course examines the basics of nutrition and sciences related to body health which include the history of the development of nutrition, understanding, properties, functions, sources, consequences of lack and excess consumption of a nutrient, both macro and micronutrients, energy balance, fluid balance and electrolytes, analyzing nutrients using a list of food ingredients composition and compiling a balanced menu based on the recommended Daily Value for Indonesia, balanced nutrition according to age groups.
Study and examination requirements and forms of examination	Cognitive: Midterm exam, Final exam, Quizzes, Assignments Affective: Assessed from the element/variables achievement, namely (a) contributions (attendance, active, role, initiative, and language), (b) being on time, (c) effort.
Media employed	Classical teaching tools with white board and power point presentation
Recommended Literature	<ol style="list-style-type: none"> 1. William, D., Rees. 2005. Michael J. Gibney, Ian A. Macdonald and Helen M. Roche (editors). Nutrition and Metabolism . Oxford: Blackwell Publishing 2003. £25.95 (paperback). ISBN 0 63205625 8. British Journal of Nutrition, 94(01):137-137. doi: 10.1079//BJN20051441 2. Xianghua, Yan. 2015. Molecular nutrition: basic understanding of the digestion, absorption, and metabolism of nutrients. Journal of Zhejiang University-science B, 16(6):413-416. doi: 10.1631/JZUS.B1500130 3. Krause, M. V., & Mahan, L. K. 2017. Krause and Mahan's Food & the Nutrition Care Process (14th ed.). St. Louis, MO: Elsevier.
Date of Last Amendment	3rd January 2022