

320223161 Food Ingredient Knowledge

Module Name	Food Ingredient Knowledge
Module Level, if applicable	Beginner
Code if Applicable	320223161
Subtitle, if applicable	-
Courses, if applicable	320223161 Food Ingredient Knowledge
Semester(s) in which the module is taught	2 nd
Person responsible for the module	Devi Dwi Siskawardani, S.TP., M.Sc.
Lecturer	Afifa Husna, S.TP., M.T.P., M.Sc
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 week
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	-
Module Objectives (Intended learning outcomes)	<p>On successful completion of this course, students should be able to understand:</p> <ul style="list-style-type: none"> • Knowledge of tuber types and characteristics (root tubers and stem tubers), the main constituent content of each type of tuber, physical and chemical properties, storage processes, processed products • Knowledge of cereals and nuts includes structure, main composition, types and characterizing characters, storage processes, processed products • Knowledge of vegetables includes main composition, classification (leaf, tuber, fruit, seed, and stem), quality

control (physical properties & chemical), analysis of harmful that generally occurs, storage processes, processed products

- Knowledge of spices includes, classification based on the influence given (spicy, aromatic, color, contains phenolic compounds, cinnamic aldehyde, and umbelliferon family), classification based on source (spices flowers, leaves, rhizomes, onions, seeds, and stems), analysis of advantages and disadvantages of each type along with harm injuries, processing processes, products (oil, dried spices or powder)
- Knowledge of tea includes main composition (polyphenols), classification of antioxidant based (black) tea, green tea, white tea, and oolong tea), quality control (physical properties and chemical), processed products
- Knowledge about milk includes quality factors (heredity, lactation level, age of livestock, udder infection, feed, and milking procedures), main composition (fat, protein, lactose, minerals, vitamins), character changes (aroma, color, taste, BJ test, freezing point, boiling point, pH, density, and viscosity), influence of microorganisms (thermophilic and lactic acid), signs of damage, type (goat, sheep, cow, & horse milk), processed products
- Knowledge about eggs includes main composition and structure, quality control (signs of damage & handling), quality analysis (AA, A, B), storage process (egg in shell and egg without shell) and packaging, types of eggs and characteristics (horn chicken, native chicken, quail, duck), processed products (salted eggs)

	Knowledge of meat includes main composition, classification (beef, veal, lamb & mutton, and pork), meat structure (blade, chuck, sirloin, tenderloin, cube roll, rib), quality control (physical and chemical properties), storage
Module Content	This course explores the wide range of ingredients used in the formulation and production of food products. It covers the classification, properties, functions, sources, and applications of food ingredients, as well as their interactions in food systems. Students will gain insights into the role of ingredients in shaping the sensory, nutritional, and functional attributes of food products, as well as their impact on food safety, quality, and sustainability.
Study and examination requirements and forms of examination	Cognitive: Midterm exam, Final exam, presentation 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	For Class A. Compulsory 1. Buckle, K.A, Edwards, R.A., Fleet, G.H., and Wootton,M. 2013. Ilmu Pangan (translated by: Hari Purnomo dan Adiono).UI Press. Jakarta. 2. Belton, P.S. and Belton, T.2002. Food Science and Society.Springer. Heidelberg. 3. Vaclavik VA, and Christian EW. 2014. Essentials of Food Science 4th Edition. Springer. New York 4. Syarief R. Dan Irawati, A.1986. Pengetahuan Bahan untuk Industri Pertanian. MSP. Bogor 5. Potter NN. 1986. Food Science 4th Edition. Springer Science + Business Media. New York B. Option

	<ol style="list-style-type: none">1. Bowers, Jane. 1992. Food Theory and Applications. Maxwell Macmillan. New York.2. Videos from Youtube related to the processing of food products3. National-international journals related to food processing, papers, articles, opinions from online media
Date of Last Amendment	20th January 2022