Module Descriptions

Module designation	**Food Chemistry**
Semester(s) in which the module is taught	7th semester/Fourth Year
Person responsible for the module	Prof. Dr. Prima Retno Wikandari, M.Si.
Language	Indonesian (Regular Class) English (International Class)
Relation to curriculum	Elective course (Study Program Elective)
Teaching methods	Project Based Learning with lectures, small group discussions, and community service 2 workhours per week (2 x 170 minutes per week)
Workload (incl. contact hours, self-study hours)	1 CU for a bachelor's degree equals 170 minutes (50 minutes face-to-face, 60 minutes structured, 60 minutes independent learning) per week × 14 weeks, excluding mid and end-term exams. = 39.67 work hours per semester = 1.587 ECTS.
Credit points	2 Credit Units (CU) = 3.18 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	1. Master food chemistry concepts related to the structure, nutrition, properties, composition, and chemical changes that occur in food during processing and storage. 2. Apply knowledge of food chemistry and show initiative in solving food-related issues in society. 3. Apply logical, critical, systematic, and innovative thinking in developing food science, while observing and applying humanistic values, to solve food chemistry problems that occur in society. 4. Be able to collaborate and demonstrate environmentally minded entrepreneurship skills.
Content	Study of the structure, properties, composition, and chemical changes of food materials during processing and storage related to the formation of flavor, color, and nutritional value (proteins and bioactive peptides, lipids, and carbohydrates), as well as food additives, food safety (ISO, GMP, and HACCP), and the development of functional food products, through lectures, small group discussions, community service, and projects
Examination forms	Written test (midterm), project/product assessment, and portfolio assessment (final product exhibition)
Study and examination requirements	Student assessments include: Participatory Activities 15% Project/Product assessment 50% Portfolio assessment 25% Tests 10%

Reading list	1. De Man, John M. 1990. Principle of Food Chemistry, 2nd ed. New York: AVI Book, Van Nostrand Reinhold. 2. Damodaran, Srinivasan (ed.). 2007. Fennema's Food Chemistry, 4th Edition. Boca Raton: CRC Press. 3. Freeland-Graves, Jeanne H. and Gladys C. Peckham. 1987. Foundation of Food Preparation, 5th ed. Canada: Macmillan Publ. Comp. 4. Journal articles related to food chemistry.