

Module Name	
	<b>Food Physical Chemistry</b>
<b>Module Level, if applicable</b>	Intermediate
<b>Code if Applicable</b>	120225436
<b>Subtitle, if applicable</b>	-
<b>Courses, if applicable</b>	120225436 Food Physical Chemistry
<b>Semester(s) in which the module is taught</b>	4 <sup>th</sup>
<b>Person responsible for the module</b>	Dahlia Elianarni, S.TP., M.Sc
<b>Lecturer</b>	Dahlia Elianarni, S.TP., M.Sc
<b>Language</b>	Indonesian
<b>Relation to curriculum</b>	Compulsory Course for undergraduate program in the Food Technology Department, Faculty of Agriculture and Animal Science
<b>Type of teaching</b>	Lecture, Project
<b>Workload</b>	<ul style="list-style-type: none"> <li>● Lecture: 2 SKS X 50 minutes X 16 weeks</li> <li>● Project: 2 SKS X 60 minutes X 16 weeks</li> <li>● Independent learning: 2 SKS X 60 minutes X 16 week</li> </ul>
<b>Credit points</b>	2 SKS X 1.5 = 3 ECTS
<b>Requirements according to the examination regulations</b>	<ol style="list-style-type: none"> <li>1. Registered in this course</li> <li>2. Minimum 80% attendance in this course</li> </ol>
<b>Recommended prerequisites</b>	Basic Chemistry and Basic Physic
<b>Module Objectives (Intended learning outcomes)</b>	<p>On successful completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> <li>● Provide a comprehensive understanding of the physical principles that govern the behaviour of food components and systems.</li> <li>● Gain insight into the properties, structure, and behaviour of food molecules and their interactions.</li> <li>● This knowledge is essential for understanding various food processing techniques, product development, and quality control in for the sustainability of the food industry.</li> </ul>
<b>Module Content</b>	This course presents chemistry and physical systems in food, colloidal, rheology, water activity, and kinetic reaction.
<b>Study and examination requirements and forms of examination</b>	<p><b>Cognitive:</b> Midterm exam, Final exam, Quizzes, Assignments</p> <p><b>Psychomotor:</b> Practice</p> <p><b>Affective:</b> Assessed from the element /variables achievement, namely (a) Contributions (attendance, active,</p>

	role, initiative, and language), (b) Being on time, (c) Effort.
<b>Media employed</b>	Classical teaching tools with whiteboard and PowerPoint presentation
<b>Recommended Literature</b>	<p>For Class</p> <p><b>A. Compulsory</b></p> <ol style="list-style-type: none"> <li>1. H.-D. Belitz, W. Grosch, and P. Schieberle. 2009. Food Chemistry. Springer.</li> <li>2. M.A. Rao and R. Rizvi . 2008. Food Science: Principles and Practice. Springer</li> <li>3. H. Schubert and R. J. P. Williams. 2012. Food Physics: Physical Properties - Measurements and Applications. Wiley-Blackwell.</li> </ol> <p><b>B. Option</b></p> <ol style="list-style-type: none"> <li>1. L. Brady, R. R. Weil, and D. R. R. Williams . 1988. Introduction to Food Chemistry. Wiley</li> <li>2. E. Dickinson. 2007. Food Colloids: Self-Assembly and Materials Science. Royal Society of Chemistry</li> </ol>
<b>Date of Last Amendment</b>	22nd August 2022