ASIIN

Module Description
Food Oil and Fat Processing Technology

Module designation	Food Oil and Fat Processing Technology
Module code	23G03130602
Semester(s) in which the module is taught	5th semester
Person responsible for the module (lecturers)	❖ Prof. Dr. Ir. Jumriah Langkong, MP ❖ Prof. Dr. Ir. H. Jalil Genisa, MS ❖ Dr.rer.nat Zainal, S.TP., M.FoodTech
Language	Indonesian language (Bahasa Indonesia)
Relation to curriculum	Compulsory
Teaching methods	Lecture Group Discussion
Workload	Total workload (estimated): ❖ 27 hours of lecture ❖ 32 hours of exercise ❖ 32 hours of independent study
Credit points	2 credit points = 3.24 ECTS
Required and recommended prerequisites for joining the module	
Module objectives/ Intended Learning Outcomes (ILO)	ILO 9. Exhibits advanced skills in food technology from post-harvest handling, food processing, packaging, to food product development (C6)
	CLO 1. Able to explain conceptually the characterization of oil and fat sources and physical characterization andthe chemistry CLO 2. Able to explain procedurally the technology for processing oils, fats and their derivatives
Content	❖ Benefits of oils and fats. ❖ Components and structure of fatty acids, phospholipids and fractions that do not form soap. ❖ Physico-chemical properties of oils and fats. ❖ Reactions and properties of auto-oxidation and photo-oxidation. ❖ Oil and fat processing techniques and quality standards. ❖ Oils and fats come from vegetable sources.

<table>
<tr><td></td><td>❖ Processing of oils and fats from vegetable sources.
❖ Processing of oils and fats sourced from fish and animals.
❖ Common problems of oil and grease damage
❖ Flavor stability and shelf life of oils and fats.
❖ Quality testing of oils and fats.
❖ How to apply antioxidants to oils and fats.
❖ Controlling the quality of oils and fats by administering activated charcoal.
❖ How to analyze the quality of oil and fat.</td></tr>
<tr><td>Examination form</td><td>Writing (essay)</td></tr>
<tr><td>Study and examination requirements</td><td>Examination requirements: Attendance above 80%

❖ Individual assignments: 50%
❖ Project: 50%

Grading:
<table>
<tr><th>Numerical range</th><th>Letter grade</th><th>Conversion value</th></tr>
<tr><td>85 - 100</td><td>A</td><td>4.00</td></tr>
<tr><td>80 - < 85</td><td>A-</td><td>3.75</td></tr>
<tr><td>75 - < 80</td><td>B+</td><td>3.50</td></tr>
<tr><td>70 - < 75</td><td>B</td><td>3.00</td></tr>
<tr><td>65 - < 70</td><td>B-</td><td>2.75</td></tr>
<tr><td>60 - < 65</td><td>C+</td><td>2.50</td></tr>
<tr><td>50 - < 60</td><td>C</td><td>2.00</td></tr>
<tr><td>40 - < 50</td><td>D</td><td>1.00</td></tr>
<tr><td>< 40</td><td>E</td><td>0.00</td></tr>
</table>
If student(s) receives(s) a score below 40, student(s) must retake the course</td></tr>
<tr><td>Reading list</td><td></td></tr>
<tr><td>Date of last amendment</td><td></td></tr>
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