Module Description
Sanitation and Management of Industrial Waste

Module designation	Sanitation and Management of Industrial Waste
Module code	23G03121102
Semester(s) in which the module is taught	3rd semester
Person responsible for the module (lecturers)	❖ Prof. Dr. Ir. Amran, M.Si. ❖ Arfina Sukmawati Arifin, S.TP., M.Si ❖ Muhpidah, S.TP., M.Si
Language	Indonesian language
Relation to curriculum	Compulsory course
Teaching methods	Lecture
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 7. Demonstrates the ability to manage food waste effectively while ensuring food safety (C4)
	CLO 1. Students conceptually apply clean production and industrial waste management CLO 2. Students apply conceptually the application of sanitation in the food industry
Content	❖ Clean production ❖ Clean production strategies ❖ The principle of waste minimization ❖ Clean production techniques ❖ The application of clean production in industry. ❖ Pollution and its types waste. ❖ The processing of organic liquid waste ❖ The processing of inorganic chemical waste ❖ The processing of solid waste using landfill and composting systems ❖ The processing of solid waste through pyrolysis ❖ The principles of sanitation

<table>
<tr><td></td><td>❖ Apply the principles of worker sanitation, room sanitation, equipment sanitation and industrial environment
❖ Control systems in the food industry</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%
❖ Quiz: 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>1. Away, Y. 1984. Mini Petification for Processing People's Chocolate. Plantation Tower 52 (6a): 250 -254
2. Beckett, S. T. 1988. Industrial Chocolate Manufacture and Use. The Blackie and Sons Ltd., London
3. Hardimandan and B. Kartika. 1980. Guidelines for Collection and Processing of Recorder Results. Cooperation of the Director General of Plantation of the Indonesian Ministry of Agriculture with the Faculty of Agricultural Technology UGM, Yogyakarta
4. Sevitz. M and H. E. FOOTE. 1963. Coffee Processing Technology. Inc. Wesport, Conn
5. Fox, J.J and P. J Srageman. 1912. Caffeine, Tea and Coffe in Allenis Coomerical Organic Analysis</td></tr>
<tr><td>Date of last amendment</td><td>10 July 2025</td></tr>
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