



Module Description Application of Laboratory Technique

Module designation	Application of Laboratory Technique
Module code	23G03110702
Semester(s) in which the module is taught	2 nd semester
Person responsible for the module (lecturers)	❖ Dr. Adiansyah, STP., M.Si. ❖ Prof. Dr. Andi Nurfaidah Rahman, STP., M.Si. ❖ Dr. Muhammad Asfar, STP., M.Si. ❖ Muhpidah, S.TP., M.Si.
Language	Indonesian language
Relation to curriculum	Compulsory course
Teaching methods	Laboratory practice
Workload	Total workload (estimated): 91 hours of practicum
Credit points	2 credit points = 3.24 ECTS
Required and recommended prerequisites for joining the module	None
Module objectives/ Intended Learning Outcomes (ILO)	ILO 3. Demonstrates effective communication of scientific knowledge both verbally and in written form, adhering to academic and professional standards (S) ILO 5. Applies the principles of food science and technology, statistics, and computer science to implement good manufacturing practices in food industry management (C2) CLO 1. Students can practice Good Laboratory Practice (GLP) in practical work in the Laboratory CLO 2. Students can master the concepts and theory of dilution CLO 3. Students can explain the scope of use of equipment in the laboratory CLO 4. Students can master the principles of using the spectrophotometer equipment CLO 5. Students can organize and collaborate with teams in laboratory engineering application activities.
Content	❖ Good Laboratory Practice (GLP)



	❖ Introduction to tools ❖ The principle of dilution, making solutions and determining the concentration of solutions ❖ Analysis of moisture content, AW, protein, fat and carbohydrates																														
Examination form	Writing (essay)																														
Study and examination requirements	Examination requirements: Attendance above 80% ❖ Final Report of Practicum: 70% ❖ Midterm exam: 15% ❖ End of semester exam: 15% 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> <i>If student(s) receives(s) a score below 40, student(s) must retake the course</i>	Numerical range	Letter grade	Conversion value	85 - 100	A	4.00	80 - < 85	A-	3.75	75 - < 80	B+	3.50	70 - < 75	B	3.00	65 - < 70	B-	2.75	60 - < 65	C+	2.50	50 - < 60	C	2.00	40 - < 50	D	1.00	< 40	E	0.00
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40 - < 50	D	1.00																													
< 40	E	0.00																													
Reading list	1. Richard Owusu-Apenten, 2004. Introduction to Food Chemistry. CRC Press, ISBN 9781420058178 2. Yoni, Atma (2018) Prinsip Analisis Komponen Pangan: Makro & Mikro Nutrien. CV Budi Utama. 3. Dwi Setyaningsih, Anton Apriyantono, Maya Puspita Sari. 2010. Analisis Sensori untuk Industri Pangan dan Argo. Bogor: IPB Press 4. A Guide to Laboratory Engineering Applications. 2025. UNHAS ITP Lecturer Team																														
Date of last amendment	2 July 2025																														