



Module Description Fruit and Vegetable Processing Technology

Module designation	Fruit and Vegetable Processing Technology
Module code	23G03130202
Semester(s) in which the module is taught	5 th semester
Person responsible for the module (lecturers)	❖ Prof. Dr. Ir. Hj. Mulyati M. Tahir, MS ❖ Prof. Dr. Andi Nur Faidah Rahman, S.TP., M.Si ❖ Dr. Muhammad Adiansyah, S.TP., M.Si. ❖ Muhpidah, S.TP., M.Si.
Language	Indonesian language (Bahasa Indonesia)
Relation to curriculum	Compulsory course
Teaching methods	Lecture, group discussion
Workload	Total workload (estimated): ❖ 90.67 Laboratory Practice
Credit points	2 credit points = 3.24 ECTS
Required and recommended prerequisites for joining the module	Starch and Sugar Processing Technology
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. Explain conceptually the characteristics of raw materials, ingredients, and food additives, and their influence on the characteristics of fruit and vegetable products - CLO 2. Explain procedurally the technology for processing and controlling fruit and vegetable damage
Content	❖ Understanding of vegetables and fruits according to consumer understanding ❖ Structure and chemical composition of fruits and vegetables ❖ Physiological changes in fruit ❖ Respiration ❖ Influencing factors of respiration ❖ Ripening and changes in fruit during the ripening process ❖ Substances that slow ripening and senescence



	❖ Substances that accelerate ripening and senescence ❖ Substances that slow down or speed up cooking and senescence ❖ Substances that inhibit growth ❖ Pre-harvest factors affecting quality ❖ Cultural factors ❖ Enzymatic browning ❖ Browning non-enzymatic ❖ Temperature settings ❖ Atmosphere-controlled warehousing (KA) ❖ Product release from the warehouse ❖ Packing with plastic ❖ Fruit and Vegetable Processing and Preservation Technology																														
Examination form	Writing (essay)																														
Study and examination requirements	Examination requirements: Attendance above 80% ❖ Individual assignments: 45% ❖ Case study: 50% ❖ Group task: 5% 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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50 - < 60	C	2.00																													
40 - < 50	D	1.00																													
< 40	E	0.00																													
Reading list	1. Processing of Fruits and Vegetables: From Farm to Fork. 2019. Kursheed Alam Khan, Megh. H. Royal, Abhimannyu A. Kaine. Apple Academic Press.																														



	2. Fruit and Vegetable Processing: Improving Quality. 2002. Wim Jongen 3. Research journals related to fruit and vegetable processing
Date of last amendment	26 July 2025