

Bachelor Agricultural Product Technology (THP), Agriculture Faculty, Universitas Syiah Kuala, Banda Aceh, Indonesia

Corresponding EQAS LO	Programme Learning Outcome	Module	Type of Assessment (oral presentation, report, written exam etc.)	Teaching and Learning Activities (lecture, project etc.)	Extent of Alignment with EQAS LO
Food Safety and Microbiology	1) Describe the properties of common food spoilage organisms. Experimentally determine their presence and numbers.	Microbiology	Written exam, oral presentation, poster, report	Lecture, project, small group discussion	High
		Microbiology Practicum	Written exam, report	Practical work	High
		Food Safety	Written exam, report, poster, oral presentation.	Lecture, small group discussion, small project	Medium
		Practice to Food Safety	Written exam, report, project, oral presentation	Lecture, project, small group discussion, practical work	Low
	2) Describe the properties of common food poisoning organisms, their toxins and means of detection	Food Safety	Written exam, report, poster, oral presentation.	Lecture, small group discussion, small project	High
		Practice to Food Safety	Written exam, report, project, oral presentation	Lecture, project, small group discussion, practical work	Medium
	3) Recognize and describe the principles and limitations of food preservation. Exercise appropriate judgement on the suitability of different preservation methods to particular	Food Additives	Written exam, oral presentation, short summary, video, report	Lecture, project base learning, small group discussion	High
		Food Processing Technology I	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	High

	foods; give some practical examples	Food Processing Technology II	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	Medium
		Fermentation Technology	Written exam, oral presentation, poster, short summary, report	Lecture, case method, small group discussion	Medium
Food Chemistry and Analysis	1) Demonstrate understanding of the basic concepts of organic chemistry, physical chemistry and biochemistry related to food.	Organic Chemistry	Written examination and scientific paper writing	Practical work/exercise on organic chemistry	High
		Food Chemistry	Written examination	Lecture, small group discussion, practical work	High
		Nutrition and Health Evaluation	Written examination and scientific paper writing	Lecture, case project, presentation, discussion	Low
		Biochemistry	Written exam, short summary report, and posters	Lecture, exercise, independent poster assignment.	High
		Unit Operation I	Written exam, report, and oral presentation	Lecture, small group discussion	Low
		Basic Chemistry I	Written exam, independent exercises.	Lecture, exercise, feedback	Medium
		Basic Chemistry II	Written exam, independent exercises.	Lecture, exercise, feedback	Low

		Agricultural Product Analysis	Written exam, report,	Lecture, Small group discussion,	Low
2) Demonstrate an understanding of the structure and function of major food components		Organic Chemistry	Written examination and scientific paper writing	Practical work/exercise on organic chemistry	Low
		Food Chemistry	Written examination	Lecture, small group discussion, practical work	High
		Agricultural Products Analysis	Presentations, discussions, questions and answers, teamwork	Case study / project based	Medium
		Biochemistry	Written exam, short summary report, and posters	Lecture, exercise, independent poster assignment	Low
		Nutrition and Health Evaluation	Written examination and scientific paper writing	Lecture, case project, presentation, discussion	High
	3) Describe the physical and chemical properties of foods in production and supply chains.		Food Chemistry	Written examination	Lecture, small group discussion, practical work
		Agricultural Products Analysis	Presentations, discussions, questions and answers, teamwork	Case study / project based	Medium
4) Describe the effect of different food process operations on the		Agricultural Products Analysis	Written exam, report	Lecture, Small group discussion,	Medium

	physicochemical properties of foods.	Food Processing Technology I	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	Medium
		Food Processing Technology II	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	Medium
	5) Demonstrate a practical understanding of health and safety in the laboratory.	Occupational Health and Safety	Case study and project report	Small group task and discussion	High
	6) Carry out an analysis of the proximate composition of foods and of basic sensory properties.	Agricultural Products Analysis	Written exam, report	Lecture, Small group discussion,	High
		Sensory Evaluation	Written exam, case project, laboratory practice (practicum)	Lecture, case project, presentation, discussion,	High
	7) Describe the main constituents of foods and their role in nutrition and health.	Nutrition and Health Evaluation	Written examination and scientific paper writing	Lecture, case project, presentation, discussion	High
		Functional Food	Written exam, assignment, short summary, presentation, report	Lecture, case method, small group discussion,	High
		Food for Special Need	Written exam, assignment, report, and oral presentation	Lecture, project, small group discussion	Medium

Food Processing and Engineering	1) Identify sources of raw material, explain the variability and the impact on food processing operations	Introduction to Agriculture	Report and written exam	Lecture, group work, and discussion	Medium
		Food Processing Technology I	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	High
		Food Processing Technology II	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	High
	2) Understanding the fundamental concepts of mass, heat, and momentum transfer required in food unit operations. Calculate mass and energy balances for a general food process.	Unit Operation I	Written exam, report, and oral presentation	Lecture, small group discussion	High
		Unit Operation II	Written exam, report, and oral presentation	Lecture, small group discussion	High
	3) Explain the principles and current practices of major food processing operations, and understanding the effect of processing parameters on product quality.	Food Processing Technology I	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	High
		Food Processing Technology II	Written exam, articles review and report, oral presentation, posters	Lecture, project-based learning activities, discussion	High
		Sensory Evaluation	Written exam, case project, laboratory practice (practicum)	Lecture, case project, presentation, discussion,	Medium

	4) Explain characteristics and properties of packaging materials for food products and identify appropriate packaging systems.	Packaging Technology	Written exam, oral presentation, assignment, short summary, report	Lecture, case method, small group discussion	High
	5) Understand the basic principles and practices used for cleaning and sanitation of food process equipment, including the use of water, cleaning chemicals and waste management.	Industrial Sanitation	Written exam, oral presentation, assignment, short summary, report	Lecture, case method, small group discussion	High
		Industrial Waste Treatment Technology	Written exam, oral presentation, assignment	Lecture, case method, small group discussion	High
Quality Management and the Law	1) Describe how quality management systems are applied in the food industry.	Quality Management System	Scientific Paper, Written Examination,	Focus Group Discussion, Study Cases	High
		Food and Industry Regulation	Written exam, oral presentation, report	Lecture, case method, small group discussion	Medium
	2) Describe the main organisations responsible for overseeing quality management systems at national and international level	Food Safety	Written exam, report, poster, oral presentation.	Lecture, small group discussion, small project	Medium
		Food and Industry Regulation	Written exam, oral presentation, report	Lecture, case method, small group discussion	High

	3) Describe the principles of food legislation and how they are applied in the food industry.	Food and Industry Regulation	Written exam, oral presentation, report	Lecture, case method, small group discussion	High
	4) Describe the principles of authentication of food provenance and quality.	Halal Assurance System	Written exam, oral presentation, posters, report	Lecture, interactive discussion, project, and focus group discussion	High
		Quality Management System	Written exam, oral presentation, report	Discussion, Study Cases	Low
		Food Safety	Written exam, report, poster, oral presentation.	Lecture, small group discussion, small project	Low
Generic Competences	1) Carry out a basic experimental work under close supervision and write a summary report using a word processing application and spreadsheet as appropriate.	Basic Computer	hands-on exam, assignment, written exam	hands-on learning, lecture, problem and solving activity	High
	2) Communicate scientific ideas through written, oral and visual means in their native language	Research Methodology and Scientific Writing	Written exam, research proposal, assignment, poster, powerpoint	Lecture and discussion	High

		Communication in Industry	Written exam, oral presentation, report	Lecture, project, small group discussion	High
		Proposal Seminar	Seminar presentation, research proposal	Focus group discussion, laboratory work, case method/project based	High
		Scientific-Finding Seminar	Seminar presentation	Focus group discussion, discovery learning, case method/project based	High
		Undergraduate Thesis	Undergraduate Thesis	Discovery learning, case method/project based	High
		Field Practice	Report, exam and oral presentation	Field practice, Case method	Medium
	3) Able to work in a team, with an understanding of the different roles, time management and meeting coordination.	Industrial Project Planning	Written exam, oral presentation, report	discussions, lectures, field work	High
		Halal Assurance System	Written exam, oral presentation, posters, report	Lecture, interactive discussion, project, and focus group discussion	Low
		Practice to Product Development Technology	Oral presentation, report, laboratory work activities	Laboratory activities, Project Based Learning based on product development stages.	High
		Practice of Agrotechnopreneurship	Report, oral presentation	Lecture, project, small group discussion	High
		Community Service	Report, oral, presentation	Lecture, project, small group discussion	High

		Field Practice	Report, exam and oral presentation	Field practice, Case method	High
		MBKM	Report, presentation	Case method/project based	High
4) Demonstrate self-planning in order to prioritise and manage time and resources effectively.		Field Practice	Report, exam and oral presentation	Field practice, Case method	High
		MBKM	Report, presentation	Case method/project based	High
		Proposal Seminar	Seminar presentation, research proposal	Focus group discussion, laboratory work, case method/project based	High
		Scientific-Finding Seminar	Seminar presentation	Focus group discussion, discovery learning, case method/project based	High
		Under Graduate Thesis	Undergraduate Thesis	Discovery learning, case method/project based	High
5) Demonstrate problem solving skills, showing ability to solve practical interdisciplinary problems, showing ability to separate relevant and irrelevant information and working towards a successful solution.		Industrial Project Planning	Written exam, oral presentation, report	Lecture, project, small group discussion	High
		Communication in Industry	Oral Presentation, Project, report	Lecture, group work, and discussion	High
		Logistic and Supply Chain Management	written exam, Report, oral presentation	Lecture, group work, and discussion	High
		Practice of Agrotechnopreneurship	Report, oral presentation	Lecture, project, small group discussion	High

		Agrotechnopreneurship	Report, oral presentation	Lecture, small group discussion, task	High
		Quality Management System	Scientific Paper, Written Examination,	Focus Group Discussion, Study Cases	Medium