

**RENCANA PROGRAM DAN KEGIATAN
PEMBELAJARAN SEMESTER (RPKPS)
COURSE SYLLABUS
SEMESTER GENAP DAN GANJIL (*ODD/EVEN*)
2024/2025**



Master in Food Science and Technology
Department of Food and Agricultural Products Technology

Tesis (Reguler)
Thesis (Regular)
TPTP216091 (12 SKS)

Dosen Pengampu/*Lecturers*:
Dr. Ir. Muhammad Nur Cahyanto, M.Sc.

**UNIVERSITAS GADJAH MADA
FACULTY OF AGRICULTURAL TECHNOLOGY
2024**

	Universitas Gadjah Mada Faculty of Agricultural Technology Department of Food and Agricultural Products Technology Master in Food Science and Technology Odd/Even Semester 2024/2025					Kode Dokumen (Document code):
						...
RENCANA PROGRAM DAN KEGIATAN PEMBELAJARAN SEMESTER (RPKPS) (COURSE SYLLABUS)						
Kode Mata Kuliah (Course Number)	Nama Mata Kuliah (Course Title)	Bobot (Credits)		Semester (Semester)	Status Mata Kuliah (Course Status)	Mata Kuliah Prasyarat (Prerequisite Courses)
TPTP 216091	Tesis (Reguler) Thesis (Regular)	T: 12	P: -	Gasal/ Genap Odd/ Even	Wajib Compulsory	-
Deskripsi Singkat Mata Kuliah (Short Course Description)	Mata kuliah ini memfasilitasi pelaksanaan penelitian mandiri yang terstruktur dan terarah di bidang ilmu dan teknologi pangan. Mahasiswa secara bertahap mengembangkan kompetensi penelitian melalui beberapa tahapan, meliputi penyusunan proposal, pengumpulan data, analisis statistik, interpretasi hasil, penulisan tesis, serta pelaksanaan ujian tesis. Proses penelitian menekankan pada ketepatan metodologis, ketelitian analitis, dan integritas akademik, dengan pemanfaatan <i>Artificial Intelligence</i> (AI) sebagai alat pendukung dalam pengelolaan literatur dan pengolahan data di bawah supervisi. Melalui praktik penelitian yang terarah, mata kuliah ini membangun kompetensi setara magister dalam pemecahan masalah ilmiah serta berkontribusi pada pengembangan sistem pangan berkelanjutan dan pencapaian Tujuan Pembangunan Berkelanjutan (SDGs) yang relevan. Mata kuliah ini berkontribusi pada SDG 2 (Tanpa Kelaparan), 4 (Pendidikan Berkualitas), 6 (Air Bersih dan Sanitasi Layak), 9 (Industri, Inovasi, dan Infrastruktur), 12 (Konsumsi dan Produksi yang Bertanggung Jawab), dan 17 (Kemitraan untuk Mencapai Tujuan). <i>This course facilitates structured and supervised independent research in the field of food science and technology. Students progressively develop research competence through stepwise stages, including proposal preparation, data collection, statistical analysis, interpretation, thesis writing, and defense. The research process emphasizes methodological appropriateness, analytical rigor, and academic integrity, with AI-assisted tools used as supporting instruments for literature management and data processing under supervision. Through guided research practice, this course develops Master-level competence in scientific problem solving and contributes to sustainable food systems and relevant Sustainable Development Goals (SDGs). This course contributes to SDG 2 (Zero Hunger), 4 (Quality Education), 6 (Clean Water and Sanitation), 9 (Industry, Innovation, and Infrastructure), 12 (Responsible Consumption and Production), and 17 (Partnerships for The Goals).</i>					
Capaian Pembelajaran Lulusan yang Dibebankan pada MK (Program Learning Outcomes)	CPL 1 (PLO 1)	Berjiwa Pancasila dan memiliki kesadaran akan kepentingan bangsa <i>Pancasila minded and have awareness of the interest of the nation</i>				
	CPL 2 (PLO 2)	Memiliki tanggung jawab, kepercayaan diri, kematangan emosional, etika, dan kesadaran menjadi pembelajar sepanjang hayat <i>Having responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner</i>				
	CPL 3 (PLO 3)	Menguasai konsep teoritis dalam bidang spesifik ilmu dan teknologi pangan serta memahami perkembangan mutakhir di bidang tersebut				

(PLO) Assigned to the Course)		<i>Mastering theoretical concepts in specific areas of food science and technology and understand its recent advances</i>
	CPL 4 (PLO 4)	Mampu mengumpulkan informasi dari hasil penelitian sebelumnya menjadi suatu pola pikir yang bermanfaat dan merumuskan permasalahan penelitian <i>Able to gather information from scientific findings, develop a conceptual framework and formulate research problems</i>
	CPL 5 (PLO 5)	Mampu menerapkan pendekatan ilmiah untuk pemecahan permasalahan melalui pengukuran variabel yang sesuai, mendapatkan data yang valid, menginterpretasikan data dan menghubungkannya dengan pemecahan permasalahan penelitian <i>Able to take a scientific approach to solve problems through the measurement of appropriate variables, to collect valid data, to interpret the data, and relate it to research problem-solving</i>
	CPL 6 (PLO 6)	Mampu mengkomunikasikan hasil penelitian dalam konferensi ilmiah atau jurnal ilmiah <i>Able to communicate the scientific findings in scientific conferences or scientific journals</i>
Capaian Pembelajaran Mata Kuliah (CPMK) (Course Learning Outcomes (CLO))	Setelah menyelesaikan pembelajaran mata kuliah ini, mahasiswa diharapkan mampu: (After completing this course, students are expected to be able to:)	
	CPMK 1.1 (CLO 1.1)	Berjiwa Pancasila dan memiliki kesadaran akan kepentingan bangsa [CPL 1] <i>Pancasila minded and have awareness of the interest of the nation [PLO 1]</i>
	CPMK 2.1 (CLO 2.1)	Memiliki tanggung jawab, kepercayaan diri, kematangan emosional, etika, dan kesadaran menjadi pembelajar sepanjang hayat [CPL 2] <i>Having responsibility, confidence, emotional maturity, ethics, and awareness of being a lifelong learner [PLO 2]</i>
	CPMK 3.1 (CLO 3.1)	Menguasai konsep teoretis pada bidang spesifik ilmu dan teknologi pangan (kimia pangan/mikrobiologi pangan/rekayasa proses pangan/pangan gizi) [CPL 3] <i>Mastering theoretical concepts in specific areas of food science and technology (food chemistry/food microbiology/food process engineering/food nutrition) [PLO 3]</i>
	CPMK 3.2 (CLO 3.2)	Memahami perkembangan terkini dalam ilmu dan teknologi pangan melalui publikasi ilmiah terbaru [CPL 3] <i>Understand the current development in food science and technology from recent scientific publications [PLO 3]</i>
	CPMK 4.1 (CLO 4.1)	Mampu mengumpulkan informasi dari hasil-hasil penelitian sebelumnya yang dipublikasikan dalam jurnal ilmiah menjadi suatu pola pikir yang bermanfaat [CPL 4] <i>Able to gather information from previous findings published in scientific journals and develop a conceptual framework [PLO 4]</i>
	CPMK 4.2 (CLO 4.2)	Mampu merumuskan permasalahan penelitian [CPL 4] <i>Able to formulate research problems [PLO 4]</i>
	CPMK 5.1 (CLO 5.1)	Mampu melakukan pendekatan ilmiah untuk pemecahan permasalahan melalui pengukuran variabel yang sesuai [CPL 5] <i>Able to take a scientific approach to solve problem through the measurement of appropriate variables [PLO 5]</i>
	CPMK 5.2 (CLO 5.2)	Mampu memahami metode analisis mutakhir menggunakan instrumen [CPL 5] <i>Understand the current method of analysis using instruments [PLO 5]</i>
	CPMK 5.3 (CLO 5.3)	Mampu mendapatkan data yang valid dari hasil percobaan [CPL 5] <i>Able to collect valid data from the experiments [PLO 5]</i>
	CPMK 5.4 (CLO 5.4)	Mampu menginterpretasikan data dan menghubungkannya dengan pemecahan permasalahan penelitian [CPL 5] <i>Able to interpret data and relate it to research problem solving [PLO 5]</i>

	CPMK 6.1 (CLO 6.1)	Mampu mengkomunikasikan hasil penelitian dalam forum atau konferensi ilmiah [CPL 6] <i>Able to communicate the scientific findings in scientific conferences [PLO 6]</i>		
	CPMK 6.2 (CLO 6.2)	Mampu mempublikasikan hasil penelitian dalam jurnal ilmiah [CPL 6] <i>Able to publish the research findings in scientific journal [PLO 6]</i>		
Kaitan CPMK dengan Materi dan Bentuk Pembelajaran, serta Alokasi Waktu (CLO Relation to Learning Material, Learning Forms, and Time Allocation)		Materi Pembelajaran (Learning Materials)	Bentuk Pembelajaran (Forms of Learning)	Alokasi Waktu (Time Allocation)
	CLO 1.1 CLO 2.1 CLO 3.1 CLO 3.2 CLO 4.1 CLO 4.2	1. Penyusunan proposal penelitian (Preparation of research proposal)	- Presentasi (Presentation) - Diskusi (Discussion)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 3x50 menit asinkron (3x50 minutes asynchronous)
	CLO 1.1 CLO 2.1 CLO 3.1 CLO 3.2 CLO 4.1 CLO 4.2	2. Ujian proposal (Proposal Examination)	- Presentasi (Presentation) - Diskusi (Discussion)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 1x50 menit sinkronus (1x50 minutes synchronous)
	CLO 1.1 CLO 2.1 CLO 3.1 CLO 3.2 CLO 5.1 CLO 5.2 CLO 5.3	3. Pelaksanaan penelitian (Conducting research)	- Eksperimen (Experiment) - Diskusi (Discussion)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 10x50 menit asinkron (10x50 minutes asynchronous)
	CLO 3.1 CLO 5.1 CLO 5.2	4. Monitoring dan evaluasi penelitian (Research Monitoring and Evaluation)	- Presentasi (Presentation) - Diskusi (Discussion)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 1x50 menit sinkronus (1x50 minutes synchronous)
	CLO 1.1 CLO 5.2 CLO 5.4	5. Penulisan tesis: tabulasi (rekapitulasi) data, interpretasi hasil, metode serta penerapan analisis statistik (Thesis Writing: Tabulation (recap), interpreting data, methods and application of statistical data analysis)	- Penulisan (Writing) - Diskusi (Discussion)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 4x50 menit asinkron (4x50 minutes asynchronous)

	CLO 6.2	6. Penyusunan dan pengajuan naskah publikasi ilmiah (<i>Writing a publication and submitting it</i>)	- Penulisan (<i>Writing</i>) - Diskusi (<i>Discussion</i>)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 3x50 menit asinkron (3x50 minutes asynchronous)
	CLO 1.1 CLO 2.1 CLO 3.1 CLO 5.2 CLO 6.1	7. Ujian tesis (<i>Thesis examination</i>)	- Presentasi (<i>Presentation</i>) - Diskusi (<i>Discussion</i>)	Masing-masing terdiri dari: <i>Each meeting consists of:</i> 2x50 menit sinkronus (2x50 minutes synchronous)
Metode Pembelajaran (<i>Learning Methods</i>)	Eksperimen, Presentasi, Diskusi <i>Experiment, Presentation, Discussion</i>			
Workload (<i>Student Workload</i>)	Workload tesis adalah 8 jam per hari, 5 hari per minggu, selama 22 minggu dalam satu semester. (<i>The thesis workload is 8 hours per day, 5 days per week, over 22 weeks in a semester.</i>) Perhitungan Workload per Semester (<i>Workload calculation for one semester</i>) = 8 jam/hari × 5 hari/minggu × 22 minggu/semester = 880 jam/semester 880 jam ÷ 26 jam/ECTS = 33,8 ECTS/semester = 8 hours/day × 5 days/week × 22 weeks/semester = 880 hours/semester = 880 hours ÷ 26 hours/ ECTS = 33.8 ECTS/semester Tesis dilaksanakan selama 2 semester. (<i>The thesis is conducted over 2 semesters</i>) Total Workload Tesis (<i>Total Thesis Workload</i>) = 33,8 ECTS/semester × 2 semester = 67,6 ECTS = 33.8 ECTS/semester × 2 semesters = 67.6 ECTS Catatan (<i>Notes</i>): • Satu semester terdiri atas 22 minggu kegiatan studi penuh waktu (<i>1 semester consists of 22 weeks of full-time study</i>) • Satu ECTS setara dengan 25–30 jam workload mahasiswa, dengan 26 jam sebagai standar minimum			

[illegible]

		Quiz													
		UTS Midterm Exam													
		UAS Final Exam													
		Total	100%												
Daftar Referensi (Reference)	1. Montgomery, D. C. (2019). <i>Design and Analysis of Experiments</i> (10th ed.). Wiley. 2. Creswell, J. W., & Creswell, J. D. (2018). <i>Research Design: Qualitative, Quantitative, and Mixed Methods Approaches</i> (5th ed.). SAGE. 3. Committee on Publication Ethics (COPE). (2019). <i>Core Practices</i> . 4. Peer-reviewed scientific journals in the field of food science and technology and other relevant supporting disciplines.														
Nama Dosen Pengampu (Teaching Team)	1. Dr. Ir. Muhammad Nur Cahyanto, M.Sc.														
Otorisasi (Authorization)	Tanggal Penyusunan (Date)	Koordinator Mata Kuliah (Course Coordinator)	Koordinator Bidang Keahlian (Jika Ada) (Head of Curriculum (if available))				Ketua Program Studi (Head of the Study Program)								
	05 August 2024	 Dr. Ir. Muhammad Nur Cahyanto, M.Sc.	-				 Dr. Ir. Muhammad Nur Cahyanto, M.Sc.								