



# PORTFOLIO

## Department of Agrotechnology

### Faculty of Agriculture

### University of Islam Malang

Subject	Integrated Pest Management (IPM)
Module Level, if available	Undergraduate, Study Program of Agrotechnology
Subject Code	MKB 40533
Type of course	Applied Science
Credits	3 credits
Semester	4
Prerequisite	---
Parallel Class	A
Module Description	This course is a deep understanding to students about Integrated Pest Management (IPM) with various aspects. Students know and understand about the main foundations, basic elements, main components and potentials of IPM, the potential and constraints of pht application at the farmer level; Furthermore, students are able to devise pest control strategies based on the pht concept and are able to apply appropriately in the field. Assessments are carried out both on task completion, UTS and UAS evaluation, practice of evaluating Integrated Pest Control management at the field level.
Learning Outcomes	<p><b>Course Learning Outcomes (CLO)</b></p> <p>CLO 1 : Have an attitude of creative and innovative thinking in their work in accordance with professional ethics in the field of agriculture.</p> <p>CLO 2 : Able to work independently or in a team, and use various methods of communication.</p> <p>CLO 3 : Able to solve problems that arise in the field of agrotechnology and related fields of science.</p> <p>CLO 4 : Able to apply agricultural practices based on Good Agricultural Practices.</p>
Learning Content	<p>After completing this subject, students are able to:</p> <ol style="list-style-type: none"> <li>1. Mastering the basic concepts of Integrated Pest Management (IPM).</li> <li>2. Review the impact of IPM practices on human health and the environment.</li> <li>3. Assess and identify basic elements, main components, potential components in the implementation of the IPM system.</li> <li>4. Apply Good Agricultural Practices through IPM for producing healthy food products.</li> <li>5. Able to analyze, develop strategies and implement pest control based on the concept of Integrated Pest Management (IPM).</li> </ol>
Aims	Students are able to apply the learning results of MK Integrated Pest Management (IPM) in the crop production system both independently and in the industrial world of the agricultural and plantation sectors
Teaching Methods	Tutorials with blended learning, research-based learning with laboratory work, and assignments. Presentation of group assignments at the end of the lecture as an evaluation

	of work in a team
Participant	<ul style="list-style-type: none"> <li>• Class A : 31 students in total; 4<sup>th</sup> semester = 27 students; 6<sup>th</sup> semester = 3 student, 10<sup>th</sup> semester = 1 students.</li> </ul>
Teaching Attendance	<ul style="list-style-type: none"> <li>➤ 14 meetings were completely held (100%) by lecturer</li> <li>➤ From 31 students, 2 student were below 100% of attendance (4<sup>th</sup> semester)</li> </ul>
Evaluation System	Component of assessment on this course consist of Daily assesment, midle semester test and final semester test, and practice. All these component are then combined to obtain final score. Scoring matrices and question samples are available in Appendix 1 and Appendix 2
Learning Result	<ul style="list-style-type: none"> <li>• Achievement CLO CLO 1 = 85.68 (Excellent) CLO 2 = 83.91 (Excellent) CLO 3 = 83.26 (Excellent) CLO 4 = 81.25 (Excellent)</li> </ul> <p>Complete achievement on average CLO can be seen on Appendix 3</p>
Statistical Distribution	<ul style="list-style-type: none"> <li>• A Class, score distribution: A = 20 students (65%), B = 11 students (35%), and Failed = Nothings</li> </ul> <p>Complete achievement on each per student can be seen on Appendix 4</p>
Teaching Observation	Materials were delivered in Indonesia. The student could understand the materials well.
Learning Constraints	Practical activities in the laboratory and in the field were constrained due to the COVID-19 pandemic, the activities of more than 11 people were prohibited. The lack of these activities makes students weak in mastering application techniques
Recommendation	As an effort to overcome practical obstacles during the pandemic, blended learning optimization is a strategic solution. It is necessary to make a step-by-step video tutorial which will then be uploaded to the Learning Management System

## Appendix 1. Scoring Matrix

Nomenclature	Weight	Final Score	
		Letter Mark	Score average
Daily assessment	20%	A	80 – 100
Midle semester test	25%	B	70 - <80
Final semester test	25%	C	55 - <70
Practice	30%	D	50 - < 55
		E	0 - <50

## Appendix 2. Question samples

1. Mention the understanding, environment and purpose of IPM, and explain the importance of implementing IPM in relation to adequacy and food safety! (CLO 1)
2. Describe the negatip impact of synthetic pesticide use on health, environmental damage and crop pest development! (CLO 2)
3. Describe the importance of considering economic, ecological and social aspects in the application of IPM systems. (CLO 3)
4. Explain what the strategy and application of IPM in the field / level of farmers, describe your analysis based on airy observations why the application of IPM in the field many obstacles, how it should be done so that the application of IPM at the farmer level can succeed properly. (CLO 4)

### Appendix 3. Achievement of CLO

Meetings	CLO 1 (%)	CLO 2 (%)	CLO 3 (%)	CLO 4 (%)
1	85.68			
2		83.87		
3			85.68	
4,5		83.96		
6,7				85.49
9,11				79.23
12			80.85	
13,14				79.03
Average	85.68	83.91	83.26	81.25
Predicate	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT

### Standard

Std num-based AI		Weighted avg LO based AI	
>70 = AI	HIGH	>70 = AI	EXCELLENT
60 <= AI < 70	MEDIUM	60 <= AI < 70	SATISFACTORY
50 <= AI < 60	LOW	50 <= AI < 60	DEVELOPING
AI < 50	VERY LOW	AI < 50	UNSATISFACTORY

## Appendix 4. Achievement on each per students

No.	Nomer Induk Mahasiswa	Nama Mahasiswa	SUB-CPMK/BOBOT (NILAI HARIAN)																		NILAI HARIAN (Assignment) (20%)		Midle Test (20%)	Final Test (20%)	Presence (10%)	Practice (30%)	NILAI AKHIR **		
			1		2		3		4		5		6		7		8		9		Skala 4	Skala 100					ANGKA	HURUF	
			5%	15%	5%	15%	5%	20%	5%	5%	5%	10%	20%	Skala 4	Skala 100														
1	21501031064	BIMBI DANAR PUDYANING TYAS	4,00	0,20	4,00	0,60	4,00	0,60	3,00	0,15	3,50	0,70	4,00	0,20	3,00	0,15	3,00	0,30	3,00	0,60	3,50	87,50	80	80	100	80	83,50	A	
2	21801031056	INDRA HIDAYATULLAH	3,00	0,15	3,50	0,53	4,00	0,60	3,00	0,15	4,00	0,80	2,50	0,13	3,00	0,15	3,00	0,30	3,00	0,60	3,48	86,88	70	70	100	75	77,88	B	
3	21801031082	BRASTANGKORO GALIH SETYO	3,50	0,18	4,00	0,60	3,00	0,45	3,34	0,17	2,00	0,40	3,00	0,15	3,00	0,15	3,75	0,38	3,00	0,60	2,99	74,80	70	80	100	80	78,96	B	
4	21801031087	EKO RIWAN SAPUTRO	2,00	0,10	4,00	0,60	3,67	0,55	3,00	0,15	3,00	0,60	3,00	0,15	2,50	0,13	3,00	0,30	3,00	0,60	3,08	76,89	70	75	100	75	76,88	B	
5	21801031001	PRADITA PRIMA DEVIYANTO	4,00	0,20	2,75	0,41	3,00	0,45	2,00	0,10	3,00	0,60	2,00	0,10	3,00	0,15	2,00	0,20	3,00	0,60	2,91	72,81	80	85	100	85	83,06	A	
6	21801031003	BHISMA VEGISTA UTRA P	4,00	0,20	2,50	0,38	3,00	0,45	3,34	0,17	3,00	0,60	3,00	0,15	3,00	0,15	3,00	0,30	3,00	0,60	2,99	74,80	85	85	100	85	84,46	A	
7	21801031004	FERI ADI KURNAWAN	4,00	0,20	4,00	0,60	3,00	0,45	3,00	0,15	3,00	0,60	3,50	0,18	3,50	0,18	3,00	0,30	1,00	0,20	2,95	73,75	70	70	100	75	75,25	B	
8	21801031005	MUHAMMAD AGUNG HIDAYAT	4,00	0,20	3,25	0,49	4,00	0,60	2,00	0,10	3,00	0,60	3,00	0,15	2,50	0,13	4,00	0,40	3,00	0,60	2,96	74,06	80	85	100	85	83,31	A	
9	21801031008	MUHAMMAD KHORIRURROZZK	4,00	0,20	3,50	0,53	4,00	0,60	2,75	0,14	3,50	0,70	1,00	0,05	1,00	0,05	1,00	0,10	1,00	0,20	2,71	67,81	70	70	100	75	74,06	B	
10	21801031009	SINDRA	3,50	0,18	3,00	0,45	3,00	0,45	4,00	0,20	3,00	0,60	3,00	0,15	3,00	0,15	2,50	0,25	3,50	0,70	3,28	81,88	70	70	100	75	76,88	B	
11	21801031010	DEWI JANAH	4,00	0,20	3,50	0,53	4,00	0,60	4,00	0,20	3,67	0,73	4,00	0,20	3,75	0,19	4,00	0,40	4,00	0,80	3,85	96,16	80	80	100	75	83,73	A	
12	21801031011	USAGI FARROZIN SHIDQI	4,00	0,20	3,00	0,45	3,00	0,45	3,00	0,15	3,00	0,60	3,00	0,15	3,00	0,15	4,00	0,40	3,00	0,60	3,13	78,13	80	80	100	80	81,63	A	
13	21801031012	FITA FATMA PRATAMA	3,00	0,15	3,00	0,45	4,00	0,60	3,00	0,15	4,00	0,80	3,00	0,15	3,50	0,18	3,75	0,38	3,00	0,60	3,48	86,88	70	80	100	70	78,38	B	
14	21801031013	MUHAMMAD SYAH RIZAL	3,50	0,18	4,00	0,60	4,00	0,60	3,67	0,18	4,00	0,80	4,00	0,20	4,00	0,20	4,00	0,40	4,00	0,80	3,86	96,46	85	85	100	80	87,29	A	
15	21801031016	MKE SEPTIA PUTRI	4,00	0,20	3,00	0,45	3,00	0,45	4,00	0,20	3,00	0,60	3,50	0,18	3,00	0,15	3,00	0,30	2,50	0,50	3,03	75,63	80	80	100	85	82,63	A	
16	21801031017	MUHAMMAD ALEX	3,00	0,15	3,00	0,45	4,00	0,60	3,00	0,15	3,67	0,73	3,00	0,15	3,50	0,18	3,00	0,30	3,00	0,60	3,38	84,60	80	80	93	80	82,22	A	
17	21801031018	VI ALAYDA FATIKASARI	4,00	0,20	4,00	0,60	3,67	0,55	3,67	0,18	4,00	0,80	4,00	0,20	4,00	0,20	3,75	0,38	3,00	0,60	3,63	90,85	80	80	100	75	82,67	A	
18	21801031020	ABDUL AJI	4,00	0,20	3,00	0,45	3,00	0,45	4,00	0,20	4,00	0,80	3,00	0,15	3,00	0,15	3,00	0,30	4,00	0,80	3,50	87,50	85	85	100	80	85,50	A	
19	21801031021	INDRA DWI AGUSTIN	3,00	0,15	4,00	0,60	4,00	0,60	4,00	0,20	3,00	0,60	4,00	0,20	4,00	0,20	3,00	0,30	3,00	0,60	3,50	87,50	80	80	100	80	83,50	A	
20	21801031023	LALU MUHAMMAD DAUD	4,00	0,20	3,50	0,53	3,40	0,51	4,00	0,20	4,00	0,80	3,50	0,18	4,00	0,20	3,50	0,35	3,50	0,70	3,61	90,25	85	80	100	85	86,55	A	
21	21801031024	ARIFATUS SOLIHA	4,00	0,20	3,00	0,45	3,00	0,45	3,34	0,17	4,00	0,80	3,00	0,15	3,00	0,15	3,00	0,30	3,00	0,60	3,32	82,93	80	80	100	80	82,59	A	
22	21801031025	RAGIL BHAKTI AJI	4,00	0,20	4,00	0,60	3,00	0,45	3,00	0,15	4,00	0,80	4,00	0,20	4,00	0,20	3,00	0,30	4,00	0,80	3,78	94,50	80	85	100	80	85,90	A	
23	21801031026	MUHAMMAD IRVAN	3,00	0,15	3,00	0,45	3,00	0,45	3,00	0,15	3,00	0,60	4,00	0,20	3,00	0,15	3,00	0,30	3,00	0,60	3,12	78,12	80	70	93	75	77,30	B	
24	21801031027	ABDURROHMAN SHOLEH	3,50	0,18	3,00	0,45	3,00	0,45	4,00	0,20	3,00	0,60	3,00	0,15	3,00	0,15	2,50	0,25	3,50	0,70	3,28	81,88	80	80	100	80	82,08	A	
25	21801031028	ACHMAD SYAMSU DUCHA	4,00	0,20	3,00	0,45	3,00	0,45	4,00	0,20	4,00	0,80	4,00	0,20	4,00	0,20	3,00	0,30	4,00	0,80	3,50	87,50	80	80	100	80	82,22	A	
26	21801031029	AULIA MOHAMMAD RAHMAN	3,00	0,15	3,00	0,45	4,00	0,60	3,00	0,15	3,00	0,60	3,00	0,15	3,00	0,15	3,00	0,30	4,00	0,80	3,00	86,88	70	75	100	75	76,20	B	
27	21801031030	ARIF GUNAWAN	4,00	0,20	3,00	0,45	3,00	0,45	4,00	0,20	3,00	0,60	3,00	0,15	3,00	0,15	3,00	0,30	3,00	0,60	3,00	81,53	80	80	100	80	82,67	A	
28	21801031031	MTHA MIFTAHUL JANNAH	3,50	0,18	4,00	0,60	4,00	0,60	4,00	0,20	4,00	0,80	4,00	0,20	4,00	0,20	4,00	0,40	4,00	0,80	4,00	94,06	85	85	100	80	86,55	A	
29	21801031032	MLA SADIYAH ROHMAH	3,00	0,15	3,50	0,53	3,50	0,53	4,00	0,20	4,00	0,80	4,00	0,20	3,00	0,15	4,00	0,40	4,00	0,80	3,00	88,50	80	80	100	80	82,67	A	
30	21801031033	MUHAMMAD HADZIQ SHOPY	3,00	0,15	3,00	0,45	3,00	0,45	3,00	0,15	3,00	0,60	3,00	0,15	3,00	0,15	3,00	0,30	3,00	0,60	3,00	78,12	70	70	100	80	77,30	B	
31	21801031036	DIDAN FAK FUADI	3,00	0,15	3,00	0,45	3,00	0,45	3,00	0,15	3,67	0,73	3,00	0,15	4,00	0,20	3,50	0,35	3,00	0,60	3,20	80,02	70	70	100	80	78,00	B	
Rata-rata			3,56	0,18	3,35	0,50	3,43	0,51	3,36	0,16	3,42	0,68	3,26	0,16	3,23	0,16	3,17	0,32	3,16	0,63	3,29	83,20							
Konversi Skala 100			3,56	4,46	83,87	12,58	85,68	12,85	83,96	4,08	85,49	17,10	81,45	4,07	80,85	4,04	79,23	7,92	79,03	15,81	*								
																						% Mahasiswa tidak lulus				0%			
																						% Mahasiswa nilai A				65%			
																						% Mahasiswa nilai B				35%			
																						% Mahasiswa nilai C				5%			