SEMESTER COURSE OUTLINE
& LESSON PLANS
FIRST SEMESTER
2023/2024

Agricultural Microbiology Major

Department of Agricultural Microbiology

Farm Practice 2PBL

KGY201921017

Team teaching:

심상인

Agricultural Microbiology Department MBKM Team

UNIVERSITAS GADJAH MADA
FACULTY OF AGRICULTURE
2023

	Universitas Gadjah Mada Faculty of Agriculture Department of Agricultural Microbiology First Semester of 2023/2024	**Code document:**

SEMESTER COURSE OUTLINE & LESSON PLANS

Course code	Course name	Credits		Semester	course status	Prerequisite courses
KGY201921017	Farm Practice 2PBL	*T: 0*	*P:2*	*Odd*	*MBKM elective*	….

Course overview	Farm Practice 2PBL course is a hands-on agricultural course that prioritizes experiential learning in a real farm setting. This course goes beyond traditional classroom instruction, immersing students in practical projects related to crop cultivation, livestock management, and sustainable farming practices. Through collaborative projects, students gain valuable insights into the complexities of agricultural operations, applying theoretical knowledge to real-world scenarios. This project-based approach fosters critical thinking, problem-solving skills, and a deeper understanding of the practical aspects of farm management. Participants actively engage in planning, implementing, and assessing agricultural projects, preparing them for a holistic and practical understanding of the agricultural industry. This course is taken by students participating in an exchange program at Gyeongsang National University, following a syllabus determined by the local campus authorities.	
Program Learning Outcome (PLO)	***PLO 1***	Able to explain theoretical concepts regarding plant production technology by giving attention to economic and social-humanitarian aspects to achieve quality, sustainable and profitable agriculture. (K1)
	PLO 2	Able to apply logical, critical, systematic, and innovative thinking by utilizing the technology of information to produce solutions according to the field of expertise with integrity and embodied in scientific documents. [G1]
	PLO 3	Able to identify, design, implement, and solve problems that arise in the implementation of agricultural businesses. [S1]
Course Learning Outcomes (CLO)	**After completing this course, students are expected to able:**	
	CLO 1	Students are able to create comprehensive lecture outlines and experiment plans. [PLO 1]
	CLO 2	Students are able to apply theoretical knowledge to hands-on tasks, including the calculation of fertilizer and pesticide usage, crop growth analysis, and winter field crop sowing. [PLO 2]
	CLO 3	Students are able to writing effective reports (papers). [PLO 3]

Correlation among CLO, the material, learning method and estimated time		Course material	Course method (Offline/online) Learning	Estimated time
	CLO 1	Lecture outline and experiment plan writing 1	Offline learning	2 x 50 minutes
	CLO 1	Experiment plan writing 2, Test preparation for each group	Offline learning	2 x 50 minutes
	CLO 1	Agricultural testing, test field management	Offline learning	2 x 50 minutes
	CLO 1	Test plot placement method, test field management	Offline learning	2 x 50 minutes
	CLO 2	Crop packaging management practice	Offline learning	2 x 50 minutes
	CLO 2	Visit to advanced farm	Offline learning	2 x 50 minutes
	CLO 2	Test field management and growth survey	Offline learning	2 x 50 minutes
	CLO 2	Calculation of fertilizer and pesticide usage	Offline learning	2 x 50 minutes
	CLO 2	Crop growth analysis	Offline learning	2 x 50 minutes
	CLO 2	Field crop management and harvesting	Offline learning	2 x 50 minutes
	CLO 2	Winter field crop sowing practice	Offline learning	2 x 50 minutes
	CLO 2	Packaging practice	Offline learning	2 x 50 minutes
	CLO 2	Advanced farm tour	Offline learning	2 x 50 minutes

	CLO 3	Tour of advanced farmhouse	Offline learning	2 x 50 minutes
	CLO 3	Tips for writing reports (papers)	Offline learning	2 x 50 minutes
	CLO 3	Summary and final exam	Offline learning	2 x 50 minutes
Learning method	***SCL: Case based and project based learning***			
Student learning experience	***Student exchange***			
Learning Media and Course Method Percentage	Luring 100% *(Offline 100%)*			

Methods of assessment in accordance with course learning outcome with course learning outcome

Evaluation basis	*Evaluation componen*	*Percentages*	*CLO 1*	*CLO 2*	*CLO 3*
A. ***Participatory Activity***	***Lecture outline and experiment plan writing***	20%		v	
B. ***Project result/case study result***	***visit to advanced farm***	30%		v	
C. Cognitive	**Final Exam**	50%	v		
	Total	**100%**			

*) In accordance with IKU 7, the total percentage of participatory activities (A) and project results/case studies/PBL results (B) is at least 50%.

References	Sim Sang-in and 3 others. Crop Science Practice, Cheongun. Jang Kwon-ryeol. agricultural philosophy, Hyangmunsa Temple. Institute of Agricultural Sciences. Soil chemical analysis method, Hanmi Printing Company. Chae Yeong-am and 3 others. basic biostatistics, Hyangmunsa Temple			
Team Teaching	심상인			
Authorisation	**Tanggal Penyusunan** **Authorisation datr**	**Koordinator Mata Kuliah** **Course coordinator**	**Koordinator Bidang Keahlian (Jika Ada)** **Expertise coorfimator (If any)**	**Ketua Program Studi** **Head of study program**
	August 14th 2023	심상인	*Signature and name*	Ir. Ngdiman, M.Si., Ph.D.

수업 계획서

1. 강좌 및 담당교수

교과목명		농장실습2PBL	학수번호	11000004	수강반	001
외국어강의구분			강의시간	화(6,7,8,9)	강의실	
담당교수	소속	농학과	수업방법			
	성명	심상인	연구실	농생2호관 452동 118호		
	전화번호	0557721873	E-mail	sishim@gnu.ac.kr		

2. 교재 및 참고서적

구분	저자	도서명	출판사	비고
주교재	심상인 외 3	작물학 실무	청운	
참고서적	장권렬	농업철학	향문사	
참고서적	농업과학원	토양화학분석법	한미인쇄사	
참고서적	채영암 외 3인	기초생물통계학	향문사	
참고서적	J.Comns 외 3인	Tech. biopro. & photo.	Pergmon	
참고서적	E.P.Gardner 외 2인	Physiol. of crop plants	Iowa State Univ.	

3. 과제

과제	과제명	참고사항
과제	각 주제별 실습보고서 제출(1주내)	
과제	각 조별 시험계획서에 의하여 수행된 시험결과	
과제기타	현장 방문의 경우 방문 결과 리포트 작성	

4. 평가방법

평가방법	중간고사	기말고사	출석	수시고사	과제물	기타	계
배점비율	0	40	20	0	30	10	100

5. 주별 강의계획

주차	강의내용	강의방법	활용기자재	비고(상세 수업방법)
1주차	강의 개요 및 실험계획서 작성1	대면수업		

2주차	실험계획서 작성 2, 각 조별 시험준비	대면수업, 온실		
3주차	농학시험의 특성, 시험포 관리	대면수업, 온실		
4주차	시험구 배치법, 시험포 관리	대면수업, 온실		
5주차	작물 포장 관리 실습	대면수업		
6주차	선진 농가 방문	대면수업		
7주차	시험포 관리 및 생육조사	대면수업, 온실		
8주차	비료 및 농약 사용량 계산	대면수업		
9주차	작물 생장량 분석	대면수업, 저울, 건조기		
10주차	밭작물 관리 및 수확	대면수업		
11주차	월동 밭작물 파종 실습	대면수업, 농기구		
12주차	포장 실습	대면수업, 농기구		
13주차	선진농가 견학	대면수업		
14주차	선진농가 견학	대면수업		
15주차	보고서(논문)작성 요령 총정리 및 기말고사	대면수업		

과제 요약:

날짜	세부 정보