2025학년도 2학기 수업계획서

· 기본정보

과목명	식품미생물대사학				
학점(시간)	3(3)				
이수구분	전공핵심	과목유형	일반강의	수업형태	블렌디드
수강번호				반번호	01
강의시간					
강의실					
담당교수	김명희	팀티칭	N	소속	
면담시간					

· 과목 관련 정보

동일과목	
선수과목	

· 세부내용

1.강의소개 :

This lecture provides scientific knowledge about the physiology of microorganisms, metabolic pathway, and applications of microorganisms in food and food industry.

2.수업목표 :

The goal of this course is to enable the student to;

1. obtain a good understanding of food microbiology and metabolism, including:
   1) material transportation
   2) bacterial energetics
   3) microbe metabolism in fermented foods
   4) microbial genetics

2. have a useful information in areas of food production and processing, quality control, and food hygiene.

3. be qualified for the advanced study of food microbiology in graduate school.

3.수업진행방법 :

• 세부내용

1) Blended Learning: On-line Lecture (Friday) + Q and A in Class (Tuesday)

2) Homework

3) 융복합수업으로 진행한다.

스마트교육:

4.중요교재 및 문헌 :

중요교재: 식품미생물학
저자: 김명희, 박석규, 조석철, 박훈
출판사: 창지사

Brock Biology of Microorganism

Essentials of Food Microbiology

5.수업의 효율성 제고를 위한 기타사항(선수과제 제시 권장) :

1) Basic biology or basic chemistry

2) Not allowed to use cellular phone, laptop computer, or any other electronic devices during the lecture.

3) After lecture starts, frequent in and out is strongly prohibited.

• 세부내용

6.학습평가 :

1) Students will be evaluated by tests, homework, project presentation, class participation, and attendance.

2) To use cellular phone or tab during the class is strictly prohibited.
One point deduction for each violation.

3) Assignments:
At least four assignments (Refer Course Outline).

4) Evaluation:
Tests(midterm, final, quiz)
Assignments
Class Participation
Attendance

5) Cutoff Percentage Grade
90-100% of points A
80-89% of points B
70-79% of points C
60-69% of points D
0-59% of points F

평가비율
중간시험 : 30%, 기말시험 : 40%, 출결 : 10%, 예·복습 : 10%, 기타 : 10%

※ 스마트교육: 학생의 수업 활동 참여에 대한 평가 권장
예: 수업참여도(발표, 토론, 학생 간 상호 평가), 포트폴리오 등

• 주별계획

주	학습목표 및 주요학습활동	주교재 및 참고자료	퀴즈/과제/토론 유무
1	Course Introduction / Transportation		Introduction, Lecture
2	Catabolism and Anabolism / Redox Reactions and Electron Carriers		Lecture / Feedback

• 주별계획

주	학습목표 및 주요학습활동	주교재 및 참고자료	퀴즈/과제/토론 유무
3	Cellular Respiration / Regulation of Glycolysis and Transition Step		Lecture / Feedback
4	TCA / ETS		Lecture / Feedback
5	Chemiosmosis and Oxidative Phosphorylation / Anaerobic Respiration		Lecture / Feedback
6	Basics of Fermentation / Various Fermentations / Seminar		Seminar Report
7	Summary / Q & A		Lecture / Feedback
8	Midterm		
9	Various Fermentations / Primary Metabolites		Lecture / Feedback / Video Materials for Fermentation
10	Sencondary Metabolites / Macromolecules		Lecture / Feedback
11	Central Dogma of Molecular Biology / DNA		Lecture / Feedback or Seminar
12	DNA replication / Transcription		Lecture / Feedback / Seminar
13	Translation		Lecture / Feedback
14	Mutation and Repair / Summary		Lecture / Feedback
15	Final		