CP03004: FOOD BIOTECHNOLOGY

Credit 2: lecture 1.5 – practice 0.5

EXPECTED LEARNING OUTCOME

Notation	Course expected learning outcomes After successfully completing this course, students are able to:	Program expected learning outcomes
Knowledge		
K1	Explain the application of biotechnology in food technology such as selection or modification of preeminent microorganisms in food production; Selection and development of plant varieties with desired traits	ELO2
K2	Describe some biotechnological methods in quality management and food hygiene in order to be able to participate in developing quality assurance systems for food production processes.	ELO5
Skill		
K3	Apply knowledge and skills learned to select and modify the potential microbial strains for food production and food hygiene and safety	ELO11
K4	Apply knowledge and skills in molecular biology and immunology learned to analyze the quality and safety of raw materials, semi-finished products and finished products.	ELO11
K5	Develop leadership and teamwork skills	ELO6
Attitude		
K6	Demonstrate the ability of life long learning	ELO15

COURSE CONTENTS

Chapter 1: Introduction to Microbiology
Chapter 2: Genetic engineering techniques
Chapter 3: Transgenic plants in food technology
Chapter 4: Technologies using yeasts and products
Chapter 5: Technologies using bacteria and products
Chapter 6: Enzymes of microbiological origin
Chapter 7: Biotechnology in food safety quality assessment
Practical part::

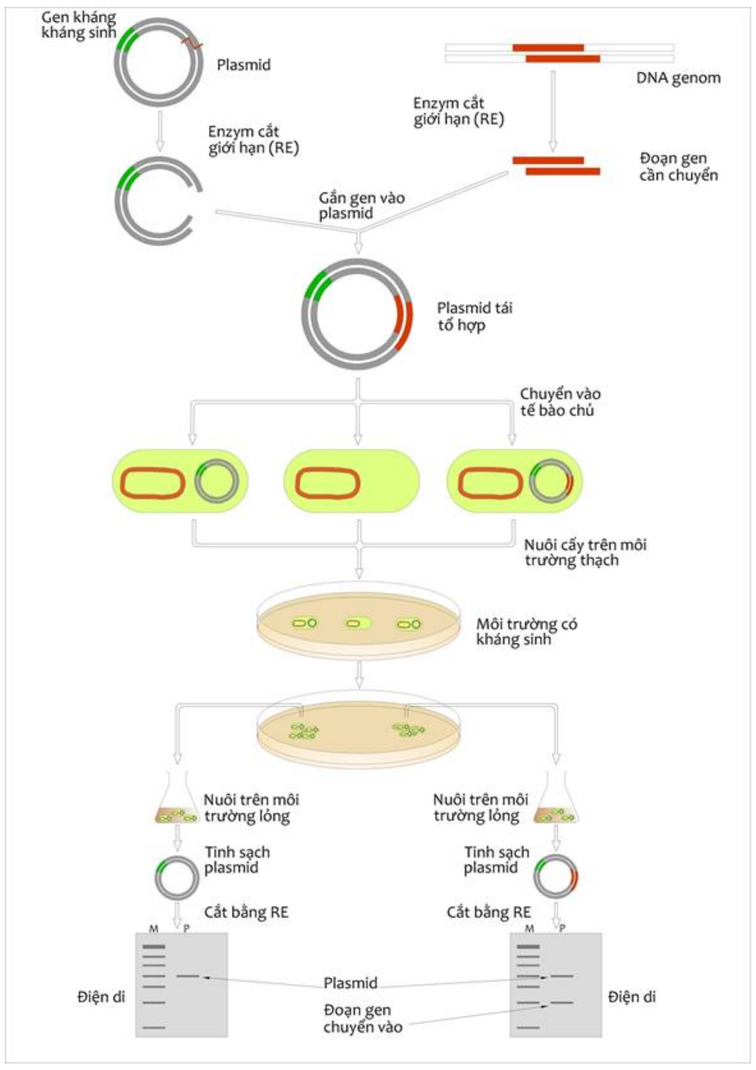
- Lession 1 + 2: Growth curve and lactic production of lactic acid bacteria
- Lession 3: Enzyme

LEARNING METHODS

- Discuss in groups according to the questions / topics raised by lecturers and students
- Conduct group experiments under the guidance of teachers, discuss and report results in groups.
- E-learning: use online lectures and online discussions with lectuers

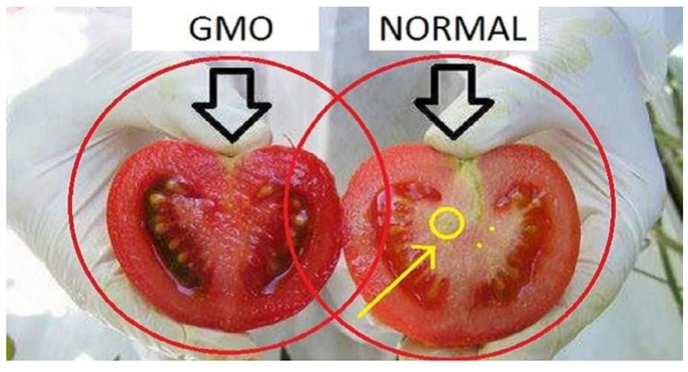
STUDENT TASKS

- Attend a minimum of 75% of theoretical periods, 100% practice.
- Before each lesson, student need to study the previous lesson and read the basic content of the upcoming lesson
- Actively participate in questioning, exchanging, practising and showing desire to learn.



ASSESSMENT METHODS

- Grading: 10
- Average score of course is the total points of rubrics multiplied by the respective weight of each rubric
- Process evaluation: 40%: Group presentation - 20%, Assessment of practice - 20%.
- 60% final assessment: multiple choice question exam



LECTUERS IN CHARGE

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