

COURSE EXPECTED LEARNING OUTCOMES

Notation	Course expected learning outcomes After successfully completing this course, students are able to	Program expected learning outcomes
Knowledge		
K1	Analyze the meaning and role of microorganisms in the fields of social life	ELO1
K2	Identify morphological, structural, metabolic, growth and development characteristics of microorganisms and the affected factors	ELO2
Skill		
K3	Use of equipment, tools, group coordination in the practice of laboratory experiments.	ELO6
K4	Proficient in microbiological isolation procedures	ELO11

COURSE DESCRIPTION

Consists of 6 chapters

Chapter 1: History of development, general characteristics and role of microorganisms

Chapter 2: Prokaryotic microorganisms group

Chapter 3: Eukaryotic microorganisms group

Chapter 4: Virus

Chapter 5: Metabolism of microorganisms.

Chapter 6: Growth and development of microorganisms and influence factors

Practice

1. Equipment and use
2. Methods of culture and isolation
3. Techniques for observing microorganism

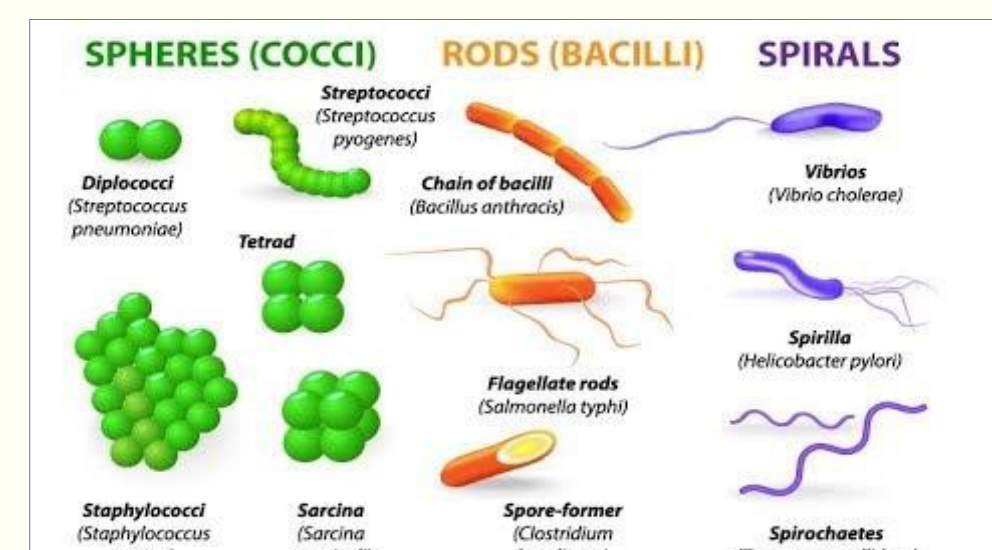
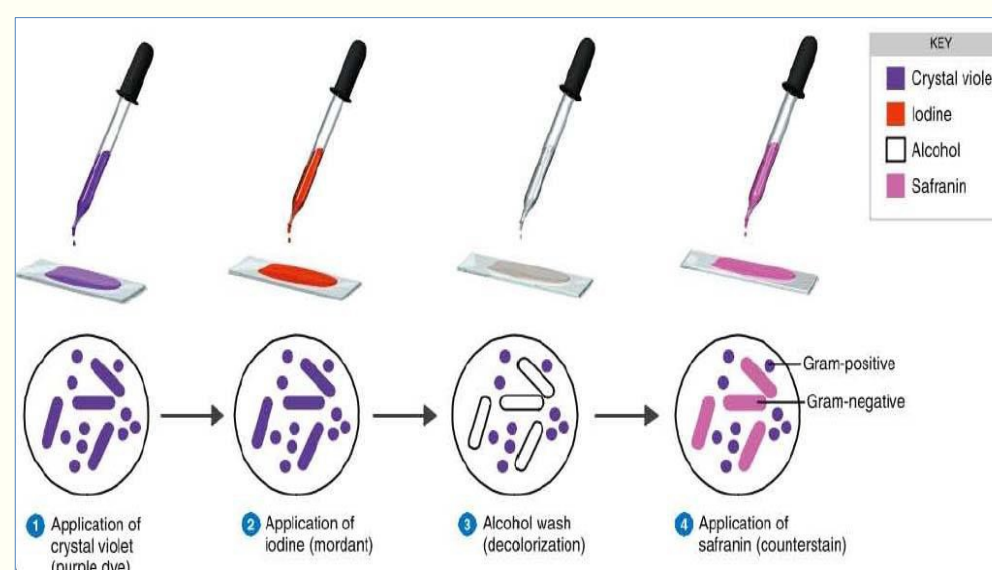
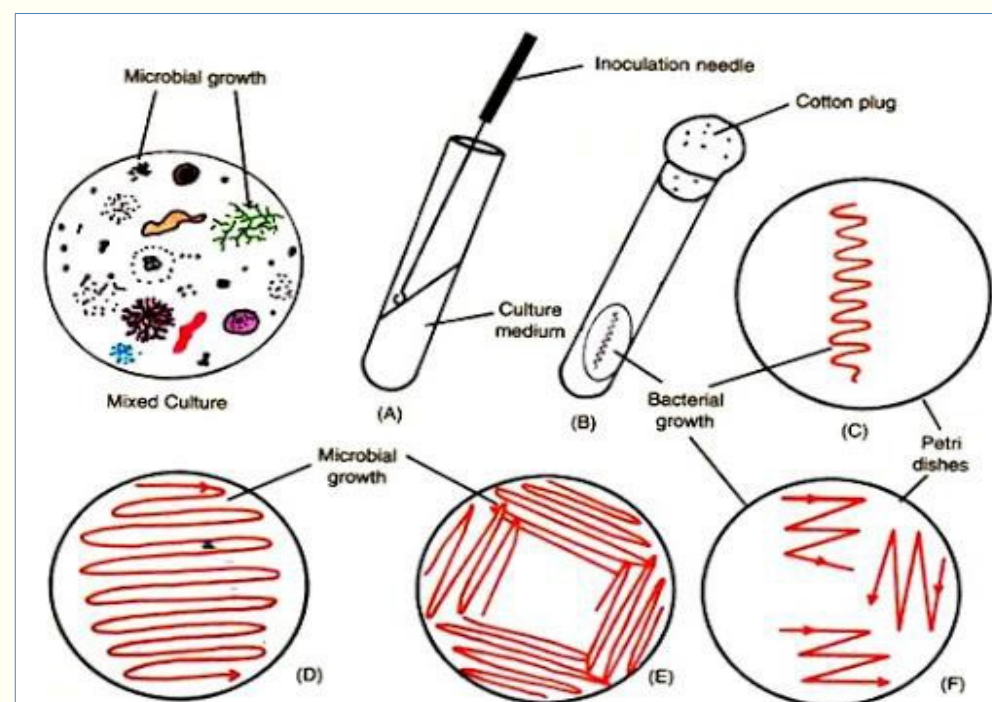
LEARNING METHODS

- Dual coding (combine words and visuals)
- Developing questioning skill
- E-learning.
- Mind mapping
- Seminar



STUDENT TASKS

- Attend a minimum of 75% of theoretical periods,
- Prepare for lectures, read reference books before class
- Actively participate in asking questions, exchanging and showing interest in learning.
- Join all 03 practice sessions.



ASSESSMENT METHODS

- Grading: 10
- Average score of course is the total points of rubrics multiplied by the respective weight of each rubric.
- Process evaluation: 50%: Group discussion - 10%, Mind mapping - 20%, Assessment of practice - 20%.
- Final assessment 50%: multiple choice

LECTURER IN CHARGE

1. Assoc. Prof. Nguyen Thi Thanh Thy
0912641428, ntthuycntp@vnu.edu.vn
2. MSc. Nguyen Vinh Hoang
0965859692, nvhoang.cntp@vnu.edu.vn