



SH03011: PROTEIN-ENZYMES TECHNOLOGY LAB

(THỰC HÀNH CÔNG NGHỆ PROTEIN-ENZYMES)

Credits: 1 credits (Lecture: 0 – Practice: 1)



EXPECTED LEARNING OUTCOMES

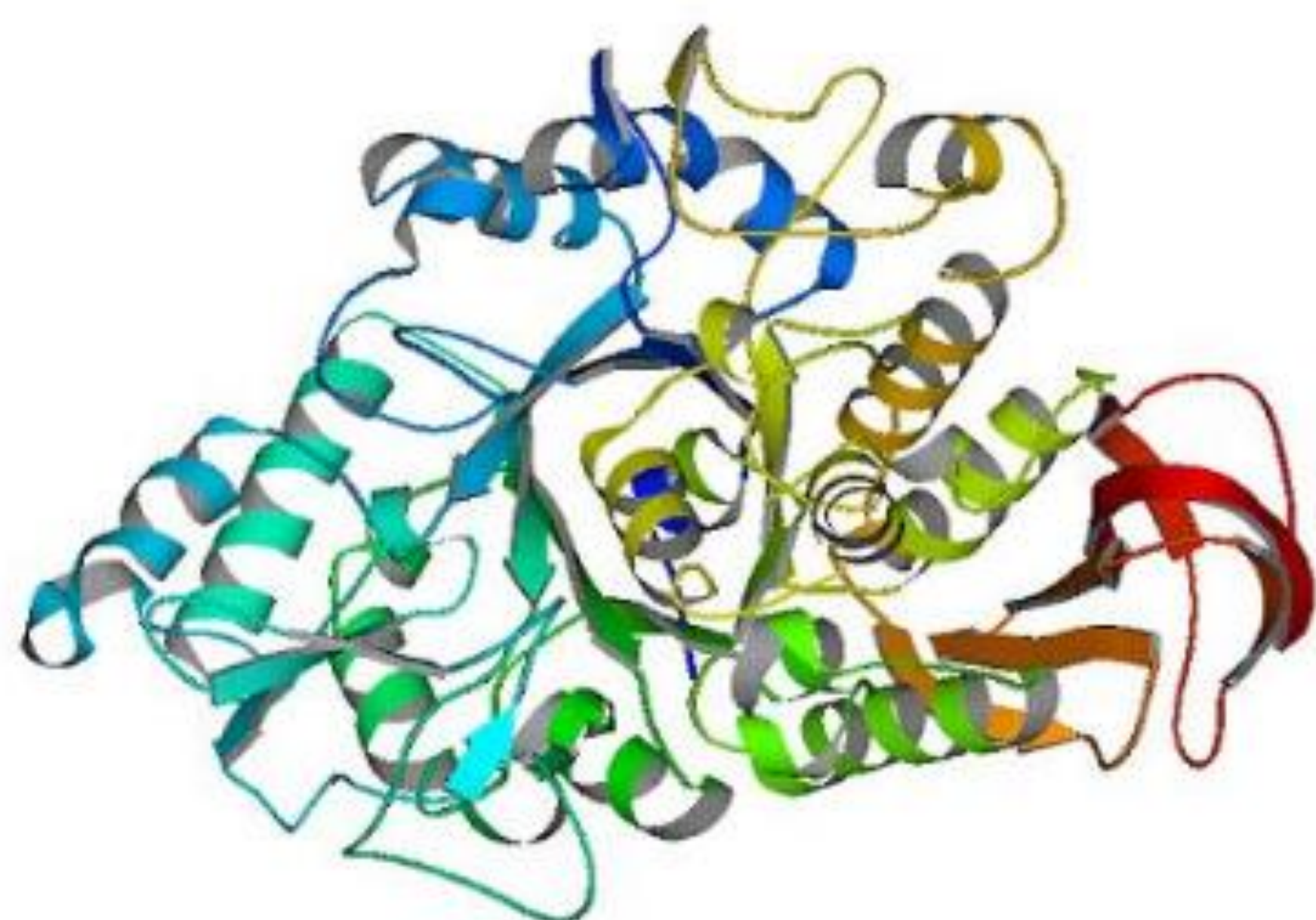
Course objectives	COURSE EXPECTED LEARNING OUTCOMES After successfully completing this course, students are able to	Program expected learning outcomes
Knowledge		
CELO1	Apply quantitative and qualitative analysis of protein, protein/enzymes separation methods to evaluate the composition and quantity of the products	ELO3
CELO2	Design evaluation models for protein/enzyme products	ELO5
Skills		
CELO3	Utilize information technology and equipment effectively in the laboratory	ELO9
CELO4	Apply protein/enzyme analysis methods and techniques appropriately in research	ELO10
CELO5	Execute proficiently in the analysis, quantification, and separation of proteins/enzymes	ELO11
Personal autonomy and responsibility		
CELO6	Comply with laboratory rules and safety rules when doing the experiments in the laboratory	ELO13

CONTENT

- Lesson 1: Determination of enzyme activity
- Lesson 2: Determination of amylase activity from different sources
- Lesson 3: Determination of protease activity from different sources
- Lesson 4: Protein quantification (Lowry, Biuret and Bradford methods)
- Lesson 5: Denaturing Protein Electrophoresis
- Lesson 6: Paper chromatography

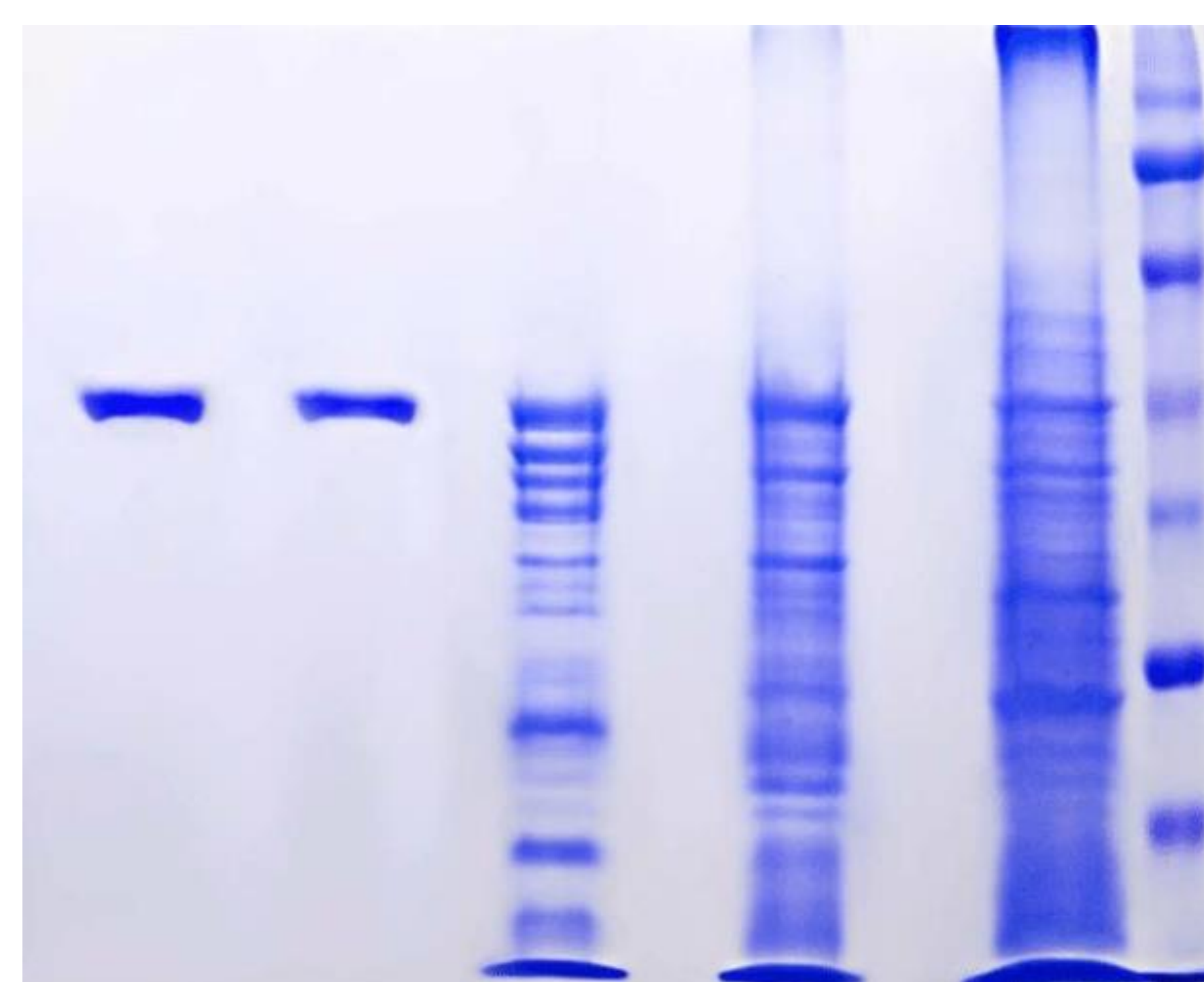
LEARNING METHODS

- Doing experiments individually or in groups of 4-6 students
- Researching references related to lessons
- Reporting all practical results



STUDENT TASKS

- Students are required to attend all lessons
- Students are required to master the knowledge of lessons
- Student must complete practical reports as lecturer's requirements



ASSESSMENT METHODS

- Grading: 10 marks
- The average score of the course is score of each rubric multiplying with the corresponding weight of each rubric
- Practical process - 30%
- Practical report – 35%
- Final exam - 35%.

LECTURES

1. Assoc. Prof. Ph.D. Nguyen Xuan Canh, 0983009828, nxcanh@vnua.edu.vn
2. Assoc. Prof. Ph.D. Nguyen Van Giang, 0986383847, nvgiang@vnua.edu.vn
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