

Carbohydrates

Monosaccharide Disaccharide Polysaccharide

Glucose
Fructose
Galactose

Maltose
Sucrose
Lactose

Starch
Glycogen
Cellulose



Single sugar molecule



Two sugar molecules linked



Many sugar molecules linked



PROGRAMME LEARNING OUTCOMES (PLOs)

KNOWLEDGE

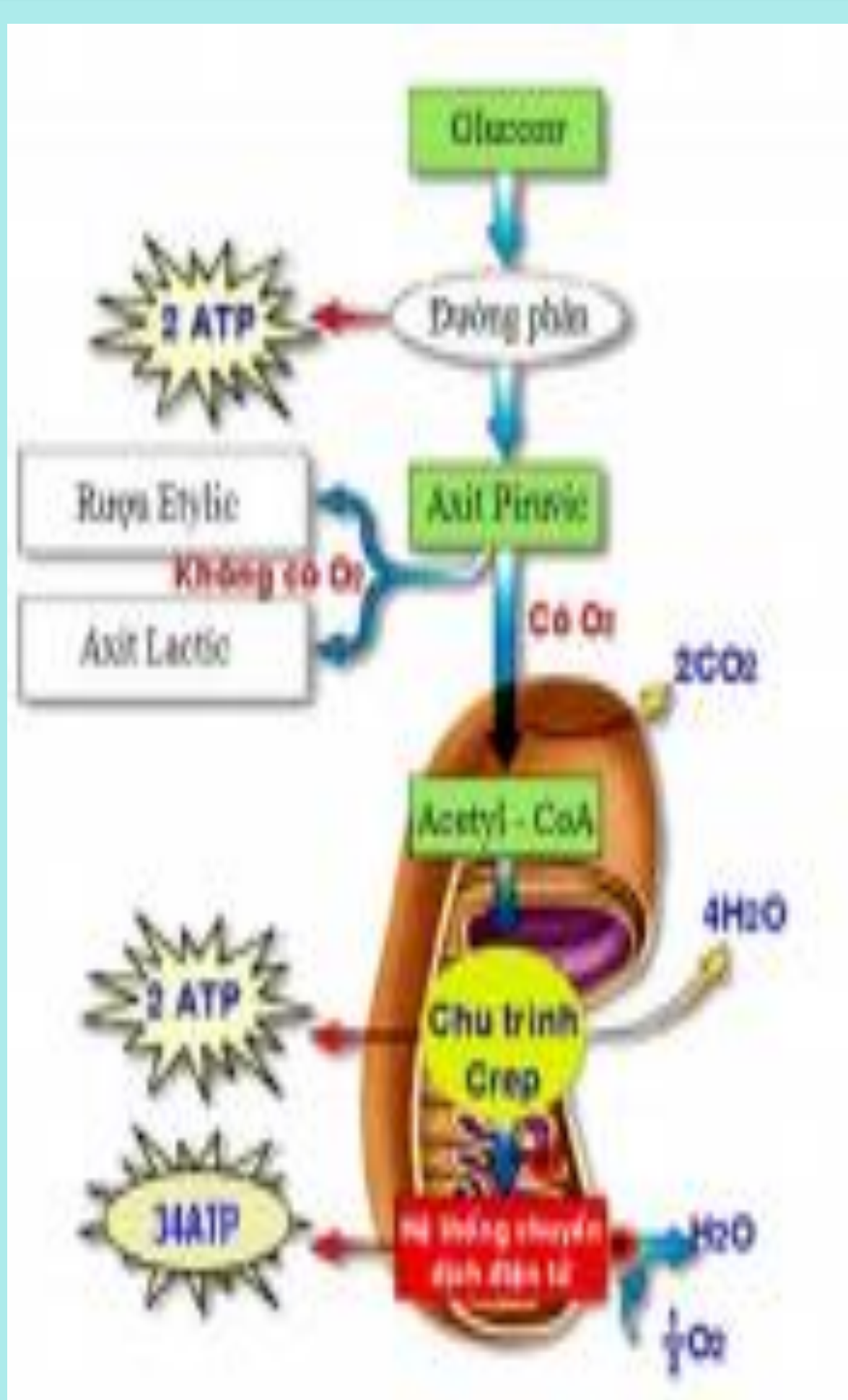
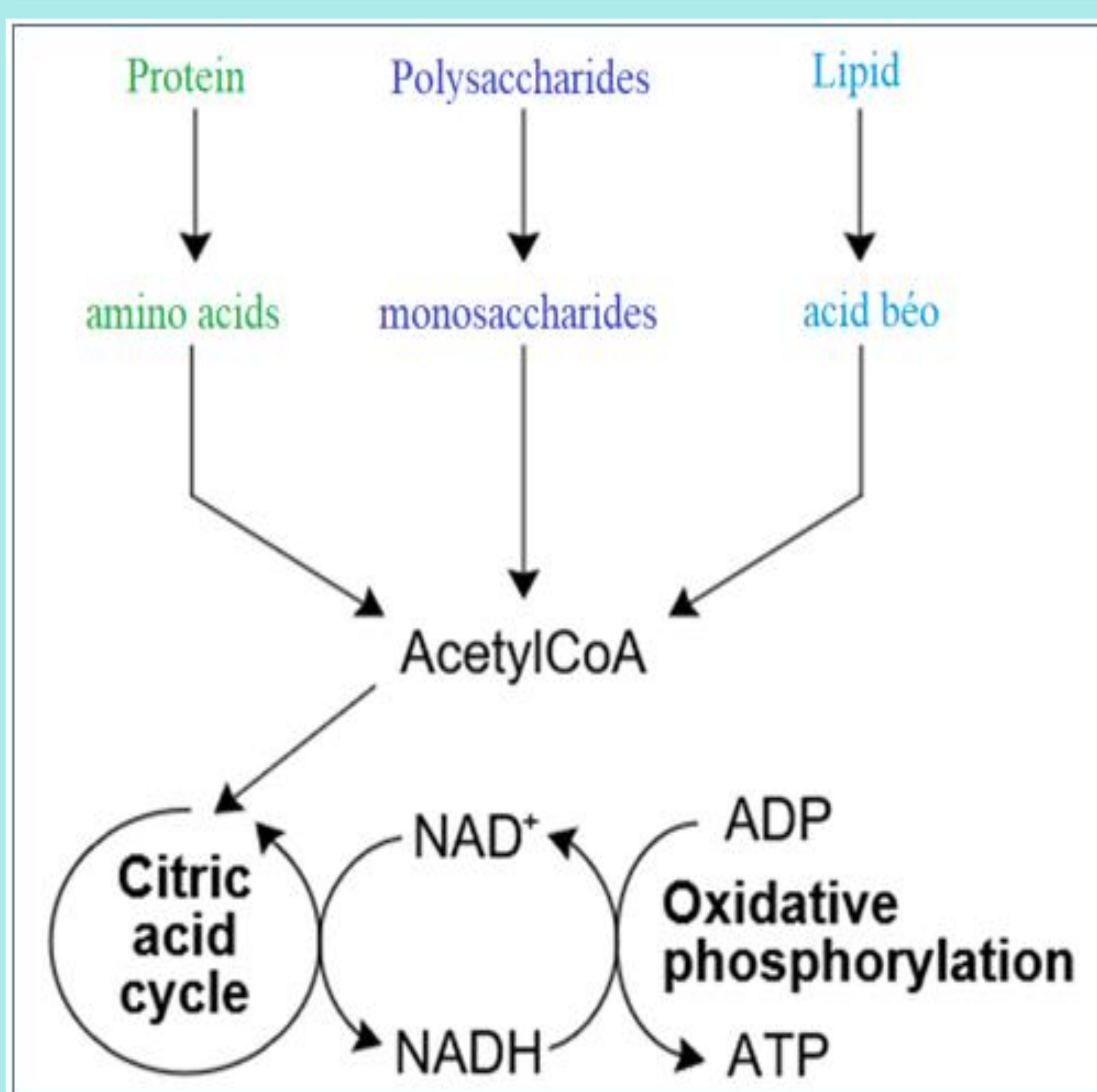
PLO 1	Apply natural, social, technical and economic knowledge to solve problems in preservation, processing, testing, and research and development of food products.
PLO 2	Formulate production procedures based on the analysis of technical factors to ensure and enhance product quality.
PLO 3	Design quality management systems for processing plants to ensure food hygiene and safety.

SKILL

PLO 4	Perform work planning, demonstrate creatively critical thinking, work independently and effectively as a team leader or member.
PLO 5	Demonstrate communication skills and use specialized English in food technology.
PLO 6	Operate production equipment in food manufacture factories.
PLO 7	Analyse product quality criteria in food preservation and processing procedures.
PLO 8	Design research to address technological and regulatory problems in the food industry through the evaluation of information, scientific data and information technology applications.

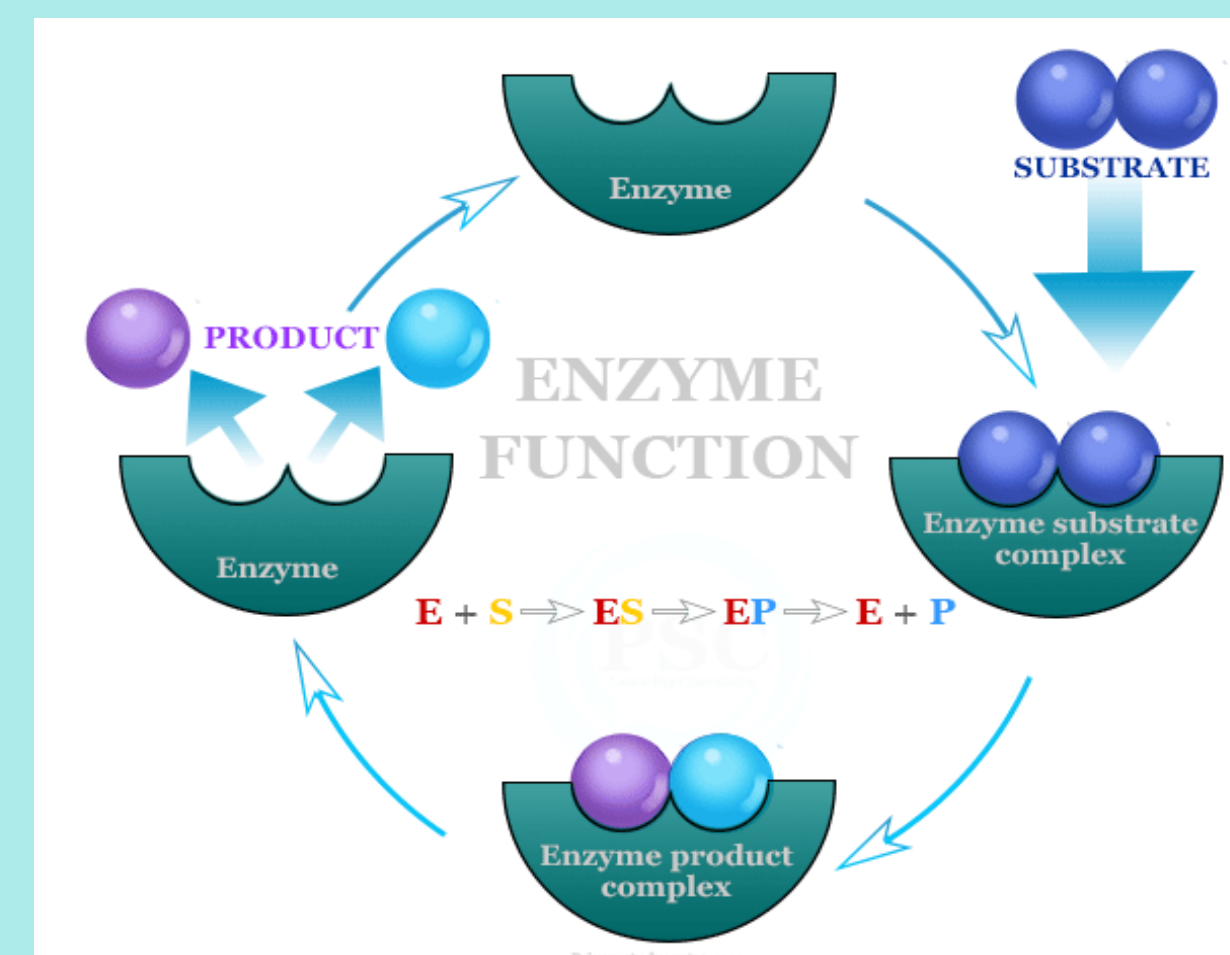
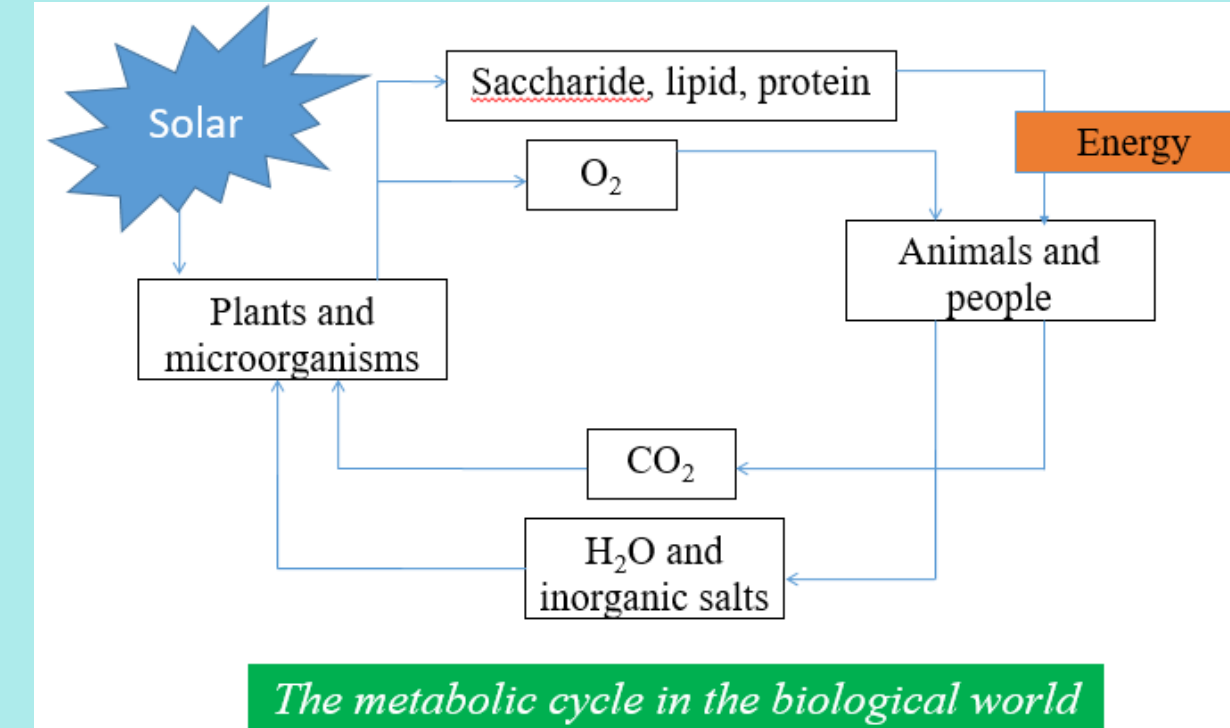
ATTITUDE

PLO 9	Work professionally, maintain professional ethics, social responsibility, and demonstrate personal physical development.
PLO 10	Demonstrate the spirit of entrepreneurship and life-long learning.

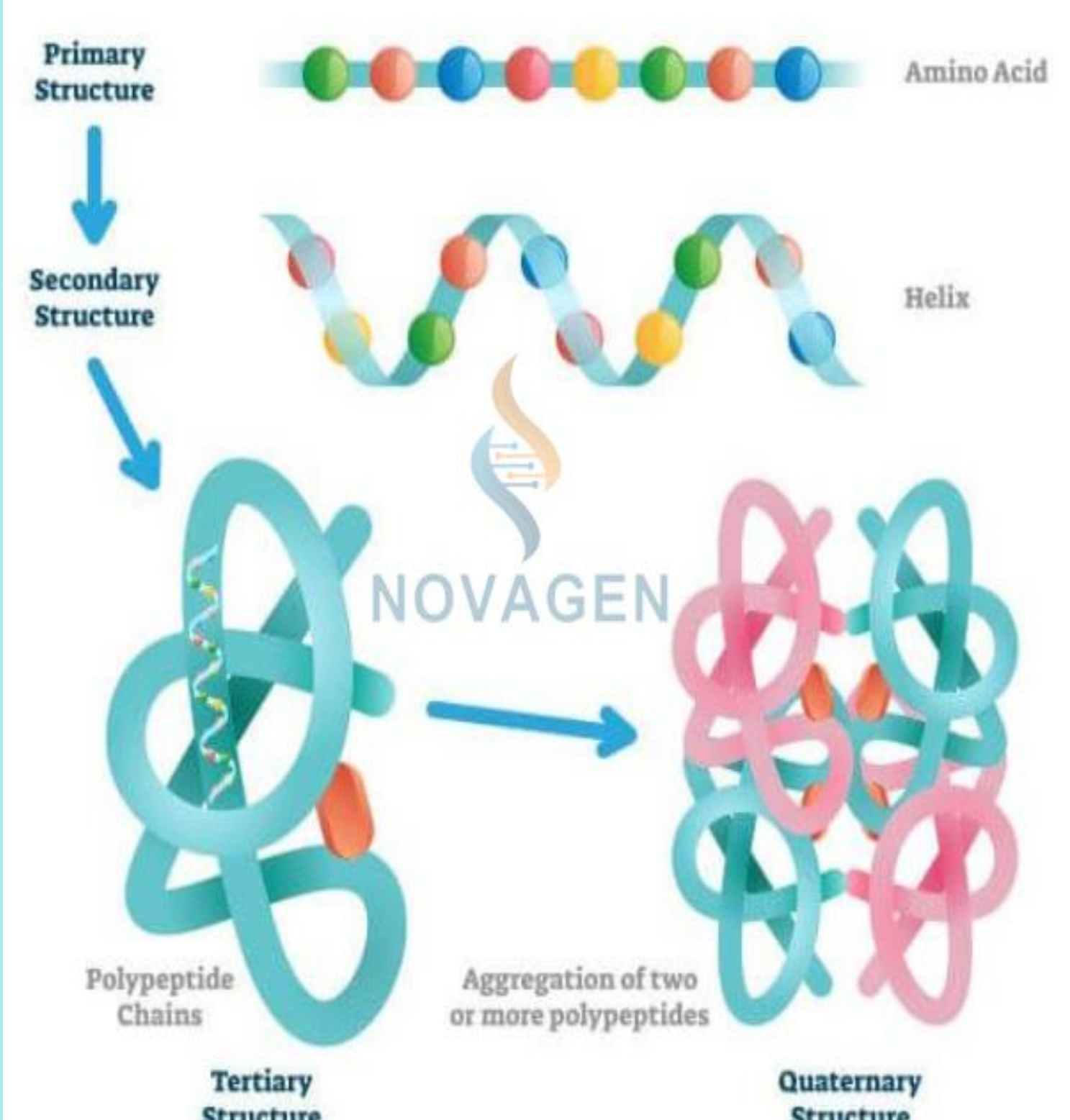


COURSE CONTENT

- ✓ **Lesson 1:** Introduction to biochemistry
- ✓ **Lesson 2:** Glucid
- ✓ **Lesson 3:** Protein
- ✓ **Lesson 4:** Lipids
- ✓ **Lesson 5:** Enzymes
- ✓ **Lesson 6:** Vitamins
- ✓ **Lesson 7 :** Metabolism



PROTEIN STRUCTURE



EXPECTED LEARNING OUTCOMES OF COURSE (CELOs)

Symbol	Expected learning outcomes of the course	PLOs of program
KNOWLEDGE		
CELO1	Apply natural scientific knowledge (carbohydrates , lipids, amino acids, proteins, enzymes and vitamins) to explain problems related to the field of food technology.	PLO 1
CELO2	Identify methods of food quality analysis to ensure food safety.	PLO 2
SKILL		
CELO3	Analyse physicochemical criteria in food technology.	PLO 7
CELO4	Apply information technology to process analytical results, work in groups, report in groups, use foreign languages to read professional documents in the field of biochemistry.	PLO 4, 5
CELO5	Operate equipment and machinery in analysis qualitative and quantitative analysis.	PLO 6
ATTITUDE		
CELO6	Comply with laboratory safety rules, work professionally, socially responsible	PLO 9
CELO7	Demonstrate the spirit of entrepreneurship and life-long learning.	PLO 10

LEARNING METHODS AND TASKS

- Students read the lesson first at home
- Listen to lectures , discuss, report seminars
- Practice in the lab



ASSESS AND GIVE US POINTS

- ✓ Score scale: 10
- ✓ Diligently, attend class
- ✓ Evaluation of the process: 50 %
- ✓ Final evaluation: 50%

LECTURES IN CHARGE OF COURSE

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