

Division of Life Science
The Hong Kong University of Science and Technology

LIFS 2820

Fall semester, 2017-2018

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Course goals

To explain the theories and concepts behind the chosen experimental sessions designed for LIFS 2720.

Learning Outcomes

By the end of this course, you will be able to:

1. *Realize* what biochemistry is all about.
2. *Understand* how biochemical knowledge can be derived from experiments.
3. *Acknowledge* the background aims and principles of designated experiments arranged for the related practical course of LIFS 2720
4. *Expose* to basic mechanistic functions of common biochemical equipments.
5. *Recognize* the potential application(s) of various common biochemical equipments.

Course description

The course is designed to enable students to acquire a strong basis of biochemical principles established in the field of biochemistry. It is designed to introduce for first-year students to the underlying principles of essential biochemical techniques that have remained indispensable in experimental biochemistry.

Teaching approach

This course is primarily delivered through lectures.

Assessment scheme

Performance is assessed at the end of the semester that contributes 100% to the course assessment.

Class outline

Introduction (To be held in Room 2303)

Acidity and Alkalinity

Ion exchange and thin layer chromatography

Gel filtration chromatography

Electrophoresis

Enzyme kinetics

Centrifugation

DNA melting curve

Metabolic syndrome I

Metabolic syndrome II

Reference books

No standard textbook required.