

# SCIENTIFIC RESEARCH METHODOGY Credit: 2 (1 theory, 1 practice)











# EXPECTED LEARNING OUTCOMES OF PROGRAMME (PLOs)

### For General knowledge

Apply natural, social, technical and economic knowledge to solve PLO 1 problems in preservation, processing, testing, and research and development of food products.

# For Professional knowledge

Formulate production procedures based on the analysis of technical **PLO 2** factors to ensure and enhance product quality

Design quality management systems for processing plants to ensure PLO 3 food hygiene and safety.

# **For Soft-skills**

Perform work planning, demonstrate creatively critical thinking, PLO 4 work independently and effectively as a team leader or member.

# EXPECTED LEARNING OUTCOME OF **COURSE (CELOs)**

**PLOs** 

For Knowledge

Demonstrate concepts related to science and scientific research CELO 1

**CELO 2** Demonstrate the steps to build a scientific research topic

**CELO 3** Demonstrate how to write a scientific report

# **For Skills**

**CELO 4** Perform scientific research outline

**CELO 5** Writing a research report

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4, 5

Demonstrate communication skills and use specialized English in PLO 5 food technology.

#### **For Professional skills**

**PLO 6** Operate production equipment in food manufacture factories.

PLO 7 Analyse product quality criteria in food preservation and processing procedures.

Design research to address technological and regulatory problems in **PLO 8** the food industry through the evaluation of information, scientific data and information technology applications.

## **For Attitude**

PLO9 Work professionally, maintain professional ethics, social responsibility, and demonstrate personal physical development.

**PLO 10** Demonstrate the spirit of entrepreneurship and life-long learning.

# **LEARNING CONTENT**

work planning, **CELO 6** Perform presentation, document search skills and use specialized English in food technology.

#### Attitude

CELO 7 Carry out serious professional work 9 flexibility Give students in product

CELO 8 processing, self-research ability, self-study 10 ability

# **LEARNING METHODS AND TASKS OF STUDENTS**

- Lecturer teach by lectures, group exercises, field practice
- Students need to read the lecture material before going to

#### class

- Attend at least 80% of theory hours and 100% of practice

Chapter 1: Overview of science and scientific research methodology Chapter 2: Defining the research problem Chapter 3: Research design Chapter 4. Writing a research report



#### hours

- Listen and answer questions;

- Do assignments in class;

- Group discussion

**Course assessment** 

Score scale: 10

- On-going assessment: 02 times (40%), Diligent attitude (10%)