MINISTRY OF EDUCATION AND TRAINING
CAN THO UNIVERSITY

SOCIALIST REPUBLIC OF VIETNAM
Independence - Freedom - Happiness

SUBJECT OUTLINE DETAILS

1. Subject: PRACTICAL TRAINING IN INDUSTRY

- **Code:** BT480C
- **Credits:** 03
- **Hours:** 90 practical hours.

2. Management Unit:

- Department of Microbial Biotechnology
- Biotechnology Research and Development Institute.

3. Prerequisites: none (should be the 3rd year)

4. Subject objectives:

4.1. Knowledge:

Students will develop knowledge and understanding of:

4.1.1. Help students to understand the process engineering in biotechnology industries; implemented & applied processes at biotechnology research institutions.

4.2. Skill: students will be able to

4.2.1. increase awareness of different levels of thinking: comprehension, application, and evaluation.

4.2.2. apply investigative and problem-solving skills.

4.2.3. participate and work at industries individually and in teams

4.3. Attitude:

4.3.1. Actively participate in production industries

4.3.2. Students are encouraged to develop positive values and informed critical attitudes.

4.3.3. Develop a sense of independent learning and an inquiry mind for self-study.

Brief description of subject content: This course will acquaint students to participate in practical conditions of production industries in the fields of biotechnology, such as food processing factories, research institutes, plant and animal breeding units, bio-chemical factories, biotechnology companies, wastewater plants, pharmaceutical manufacturers… for studying, investigating, practicing and evaluating the practical production activities or scientific activities with the aim to check what they have learned in the university and to accumulate knowledge and experiences, to link theory studied at campus and practice the skills as well as accomplish the methods of administration and management at industries.

6. Student responsibilities

Students must perform the following tasks:

- participate full time (100%) at the practical industries based on the schedule and plan that is assigned by industries/ factories.
- submit reports of the practical at the end of the practical course. The reports must be certified and signed by the manager of industries/ factories.
- ask the manager to fill in a form for evaluating student during participation at his/her of industries/ factories. This evaluation form will be collected by the course lecturers
- present, discuss, and answer with the department evaluation committee what he/ her has practiced (individual or in groups)

7. Assessment of student learning outcomes:

7.1. Assessment

No.	Point components	Rules and Requirement	Weights
1	Preparation	Report and powerpoint content	50%
2	Oral presentation	Discuss and answer to commitee questions	30%
3	Commments	Evaluation by his/her manager	20%

7.2. Grading

- Grading components and final test scores will be marked on a scale of 10 (0 to 10), rounded to one decimal place.
- Subject score is the sum of all the components of the evaluation multiplied by the corresponding weight. The subject score is marked on a scale of 10 and rounded to one decimal place, then is converted to A-B-C-D score and score on a scale of 4 under the academic provisions of the University.

8. Detailed content

8.1 General information of practical industries or research institutions

- history of foundation and development
- Location
- Scheme of organization
- Products or scientific results/works/ achievements
- Waste treatment system
- Laboratory safety
- Labour safety, fire preventive and response

8.2 Define technology procedures or scientific activities of factories/institutions.

- Materials, fuel, (description of storage, way of transportation, control, qualitative assessment, treatment, maintain. ..
- Devices, machines (structure descriptions, how to operate)
- Production/manufacturing process (description of steps, process technical parameters, raw treatment, problems in production and overcome)
- Process of deploy of scientific research (research methodology, testing/trial models)

8.3 Define quality of manufacture products or scientific research

- Primary, secondary, and by- products.

- Methodology of product quality control (way of sampling, verifying experimental, testing devices, parameters, determined methods)
- Methods of maintain and product protection
- Methods of by-product treatments
- Scientific products (projects, programs, scientific articles and materials)

8.4 Define methods of administration and management

- Methods of productive operation/ research
- Organize marketing/ Production norm
- Organize applications and transfer technology

8.5 Comments and suggestions

- Assess/evaluate organization activities
- Feedbacks for upgrading organization activities

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ON BEHALF OF RECTOR
HEAD OF DEPARTMENT