COURSE SYLABUS – CODE MT03009

ENVIRONMENTAL MONITORING: PRACTICES

Credits: 02 (Practices: 02 – Self-study: 06)

EXPECTED LEARNING OUTCOMES

Upon the completion of the course, student able to

skills	CELO1. Collecting information for the development of environmental monitoring programs and assessing the current state of the environment	**ELO7.** Work in groups and lead multi-functional teams effectively
	CELO2. Proficient in the steps to develop an environmental monitoring program according to regulations	**ELO9. Apply** appropriate approaches, suitable methods, and techniques to investigate, survey, and study environmental problems
	CELO3. Proficient in sampling methods, sample preservation techniques, and analysis techniques for some basic environmental criteria	**ELO10.** Use modern technology, equipment, and techniques in the management and protection of the environment and natural resources
	CELO4. Implement techniques for sample quality control and environmental monitoring data quality control	**ELO9. Apply** appropriate approaches, suitable methods, and techniques to investigate, survey, and study environmental problems
	CELO5. Proficient in assessing environmental monitoring results	**ELO10.** Use modern technology, equipment, and techniques in the management and protection of the environment and natural resources
	CELO6. Prepare reports on the current state of the environment in accordance with current legal regulations	**ELO7.** Work in groups and lead multi-functional teams effectively **ELO8.** Communicate effectively via oral, written, and multimedia means with stakeholders in a dynamic environment; Satisfy the English requirement of the Ministry of Education and Training
attitude	CELO7. Actively learning and updating knowledge about environmental assessment for sustainable development	**ELO11. Define** a clear career orientation; possess a passion for one's career and a sense of lifelong learning
	CELO8. Comply with legal regulations on environmental monitoring, be responsible for monitoring data	**ELO12. Demonstrate** ethical standards of the profession, carrying out the responsibility of environmental protection and serving the sustainable development of Vietnam and the world

BRIEF DESCRIPTION

- Lesson 1. Defining monitoring objectives
- Lesson 2. Building a surface water monitoring program
- Lesson 3. Developing a wastewater monitoring program
- Lesson 4. Developing an outdoor air monitoring program
- Lesson 5. Developing an emission monitoring program
- Lesson 6. Methods of mass analysis and measurement
- Lesson 7. Titration method
- Lesson 8. Analysis using tools
- Lesson 9. Handling monitoring data
- Lesson 10. Assessment of environmental quality

LEARNING METHODS

- Directly instruct students in the laboratory on practical contents.
- Guide students to discuss in groups.
- E-learning: find documents, study documents, study guides
- Internship in the field (observation, measurement, field survey, environmental parameters analysis)

STUDENT TASKS

- Attendance: All students participating in this module must ensure 100% of the internship period in the field and in the laboratory.
- Prepare for lectures: All students must complete the study of study materials, reference materials according to thematic content before each lesson requested by the teacher. Prepare materials as required by the teacher. Participating in exchanges, discussions and assignments at the request of teacher/s through e-learning.
- Presentation and discussion: Conduct presentations and group discussions in the laboratory and in the field

ASSESSMENT METHODS

- Grading scale: 10
- Evaluation:
  - Discussion and personal products (40%)
  - Professional skills and expertise (60%)

KEY ACADEMIC STAFFS

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