

Management Decisiveness Necessary to Solve Environmental Problems

No longer just a national issue, environmental pollution and climate change are now threatening food, water and air quality worldwide. Human beings must now claim responsibility for both the causes and for the solutions for restoring the Earth's to its original condition, by raising awareness and training experts to achieve this. Universities and lecturers nationwide are investing years of international environmental research experience and dedicating themselves to teaching. At Duy Tan University, Dr. Nguyen Thi Minh Phuong, Dean of the Faculty of Environmental & Chemical Engineering, has much to tell us about issues related to education relative to the current state of the environment.



Reporter: *Environmental sciences have a very wide scope, so which majors should students interested in this field study to solve the most vital issues, such as degeneration caused by poor food hygiene, environmental pollution and climate change?*

Dr. Nguyen Thi Minh Phuong: There are a many majors directly related to the environment to choose from, including Environmental Technology & Engineering, Environmental Planning, and Ecological Management, as well as indirectly related majors, like Water Resources Engineering, Mineral Resource Management, Geology, Hydrology and Oceanography. DTU currently offers three main majors:

Environmental Technology & Engineering, Natural Resources & Environmental Management, and Food Industry. In 2020, DTU is offering a new major in Tourism Resource Management, aimed at educating students to recognize the interaction between traditional tourism activities and the environment, economy and community, in order to mutually benefit from and preserve them all sustainably.

These are very popular majors, with increasing demands for qualified graduates in times of the Industry 4.0 revolution and global integration. To meet these needs, DTU has carefully planned the construction of additional workshops and investments in the latest equipment, curricula and textbooks, and highly experienced Vietnamese and foreign lecturers from all over the world, including the US, Australia, Singapore and South Korea.



Dr. Nguyen Thi Minh Phuong works at DTU

DTU Environmental Technology & Engineering graduates will be able to analyze present conditions, propose ideas and create solutions to construct solid and wastewater treatment systems. Natural Resources & Environmental Management students are taught to evaluate present conditions, create new policies and plans, exploit natural sustainable resources and manage the environment. The Food Industry major will teach how to apply science and technology to the research and development of new products, ensure quality control, take part in food processing and guarantee food and beverage safety in times when unhygienic, low-quality food is proliferating. All majors provide a solid foundation of basic knowledge on which to then build more specialized information.

Reporter: Considering the importance of these specialized majors, how does DTU tailor the curricula to ensure that graduates are well-prepared for their future jobs Professor?

Dr. Nguyen Thi Minh Phuong: These environmental sciences majors are vitally important today, with environmental problems on the increase. Lives and health are severely impacted and we must educate expert scientists with the knowledge and dedication to come up with initiatives for environmental protection right now, which is our objective in Environmental & Chemical Engineering with these courses.

We have created advanced training programs inspired by other universities around the world. A knowledge of the international environment and maritime resource management is a focus of our Environmental Technology & Engineering major. Students will conduct field surveys of water resources to propose initiatives for water treatment in Danang. In the Food Industry major, packaging technology makes a big difference. We have put together a team of twenty, staffed by PhDs from developed countries such as France, Germany, Belgium and South Korea and we also regularly invite other foreign lecturers to update students on the latest international developments. We use the CDIO (Conceive-Design-Implement-Operate) model, which is employed with great success worldwide.



DTU's Environmental & Chemical Engineering students take part in field trips

Reporter: *Another difference in branding DTU's Environmental & Chemical Engineering programs is that students take part directly in research and propose solutions to local community issues. Can you tell us more about this?*

Dr. Nguyen Thi Minh Phuong: If students only study theory, their textbook knowledge will not allow them to function on graduation. A detailed understanding of practical issues, the ability to promptly grasp a situation and come up with appropriate solutions is imperative. Fortunately, our experts can arrange field trips to solve specific local and regional problems, which is vital in providing students with real-time experience. They also team up with international students. For example, with Singapore Polytechnic, they visited regional production facilities in traditional craft villages, including weaving and bronze casting in Phuoc Kieu, rattan and bamboo factories in Quang Nam province and Tuy Loan Mi Quang and Banh Trang food production in Danang, researching ways of increasing production and improving quality and environmental issues there.

This dynamic study environment has allowed students to win major awards, including the Champion's Cup, a first and second prize at the 2013 CDIO Academy at Harvard University and MIT and a consolation prize at the 2017 "Students and Scientific Research" contest, organized by the Ministry of Education and Training.

Reporter: Recently, lecturers of the Faculty have taken part in research on key local issues concerning the environment here in Danang. What can you tell us about this?

Dr. Nguyen Thi Minh Phuong: For many years now, the Faculty of Environmental & Chemical Engineering have combined lecturing with research and applied their experience practically to solve local environmental issues, such as domestic waste, textile and dyed wastewater and aquaculture wastewater treatment. We also assessed the quality of the seawater after the Formosa incident and, most recently, conducted research and consulted with the Danang government on pressing issues, such as beach slope movement, saltwater intrusion in groundwater and water resource management.

These issues must be solved quickly, to protect the environment and the ocean, maintain community hygiene and safety and protect the city's tourism industry. Students must be directly involved because they are potentially a huge influence on change. At the same time, the general public must be made aware of problems related to the environment and to resource management, which have been significant issues with us for a while now.

Reporter: Thank you Professor for your interesting information.

In 2020 DTU continues awarding attractive scholarships to applicants to majors in the Environmental science:

- DTU scholarships: 720 scholarships, worth from 1 to 5 million VND each, for applicants with total HSGE three-subject score from 3 to 10 points higher than the admissions minimum, including applicants for majors in the environmental sciences.
- A 15% reduction in tuition fees for 50 students of Environmental Technology & Engineering and Natural Resources & Environmental Management.
- 700 scholarships, worth from 500,000 to 2 million VND each, for applicants admitted via the high school transcript method, with high school score of 22 points or higher, including applicants for majors in the Environmental sciences.

Subjects for admissions:

Major	Major code	Minor	Minor code	Subjects for admissions	
				Based on HSGE score	Based on 12th grade transcript
Environmental Technology & Engineering	7510406	Environmental Technology & Engineering	301	1. Maths, Physics, Chemistry (A00) 2. Maths, Natural Sciences, Literature (A16) 3. Maths, Chemistry, Biology (B00) 4. Literature, Maths, Chemistry (C02)	
Natural Resources & Environmental Management	7850101	Natural Resources & Environmental Management	307	1. Maths, Physics, Chemistry (A00) 2. Maths, Natural Sciences, Literature (A16)	1. Maths, Physics, Chemistry (A00) 2. Literature, Maths, Physics (C01)
		Tourism Resource Management	414	3. Maths, Chemistry, Biology (B00) 4. Literature, Maths, Social Sciences (C15)	3. Literature, Maths, Chemistry (C02) 4. Maths, Chemistry, Biology (B00)
Food Industry	7540101	Food Industry	306	1. Maths, Physics, Chemistry (A00) 2. Maths, Natural Sciences, Literature (A16) 3. Maths, Chemistry, Biology (B00) 4. Literature, Maths, Physics (C01)	

For further information, see: [Faculty of Environmental & Chemical Engineering](#)

- DTU is among Asia's 500 best universities by the QS in 2020.
- DTU is the second university in Vietnam to be ABET accredited.
- DTU is third in the eight Vietnamese universities ranked by URAP

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