UNIVERSITÀ DEGLI STUDI DELLA TUSCIA

ANNEX 1

PhD PROGRAMME IN ENGINEERING FOR ENERGY AND ENVIRONMENT	
Coordinator	Prof. Andrea Lugi Facci
Department	Department of Economics, Engineering, Society and Business Organization in collaboration with the Departiment of Agriculture and Forest Sciences and the Department for Innovation in Biological Agrofood and Forest Systems
Program duration	3 years: 2nd January 2026 – 31st December 2028 Thesis Defense: within February 2029
Program objectives	The PhD program in Engineering for Energy and Environment aims to provide a high level of training to a select number of young graduates to make them competitive on a national and international level in private companies with high technological contents, research centers and universities. The main objective of the program (which is structured in two curricula, Energy and engineering systems and Biosystems and environment) is to provide an interdisciplinary view of engineering problems in the energy and environment scientific areas, characterized by a high technological development. The research activities will be devoted to the study of new engineering solutions, novel processing techniques and innovative research methodologies, with a focus on their technology transfer. Students will be engaged in training activities and scientific research in the program subjects, with particular reference to technologies for thermonuclear fusion, energy conversion processes, energy storage, environmental issues, innovations in the fields of mechanical engineering, also in agriculture, and of sensors, biosystems and agricultural issues, with regard to primary production and environmental aspects. The work of the PhD students will be coordinated by the members of the board already active in national and international industrial collaborations and research projects, in innovative and relevant topics, such as hydrogen technologies, renewable energy, biomass, biosystems and thermonuclear fusion.
No. 1 position with scholarship	**Curriculum "Energy and engineering systems"** **Topic**: "Integrated Circular Economy Models for the Sustainable Transition of Production Supply Chains: Analytical Methods and Decision-Support Tools" **Advisor**: Prof. Ilaria Baffo
Period abroad	PhD students are required to spend a period of study and research abroad at international universities, companies, or research institutions. The total duration of these stays abroad for each PhD student must be at least 3 months, which don't have to be continuous. PhD students, with and without scholarship - with the exception of the positions mentioned in Article 9, paragraph 6 of Ministerial Decree 226/2021 - are entitled to an additional budget of at least 50% of the scholarship amount. This is for periods abroad that don't exceed the duration above mentioned, subject to any further available funds. In any case, the scholarship increase is only granted for continuous periods of no less than thirty days.

Admission requirements	Admission is open to candidates of any nationality and age possessing one of the following requirements by the deadline of the call for application: - Italian degree "Laurea Vecchio Ordinamento" (4-year-university degree) - Italian degree "Laurea Specialistica" or "Magistrale" (2nd-level two-year Italian university degree/Master program) - International academic qualification (degree) awarded in a foreign University or in the context of inter-university cooperation and mobility agreements. Admission is also open to students who will obtain their degree by 31 December 2025.
Evaluation of candidates (Maximum score: 80 out of 80)	**Evaluation of academic qualification and oral examination** **Assessment of the English Language Knowledge.** Language for the examination: Italian or English The evaluation of qualifications is preliminary to the oral exam. The score obtained by candidates after the evaluation of their qualifications will be added to the score of the oral examination. The results will be published on the Call webpage. Together with the application form, candidates should submit a research project up to a maximum of 5 pages, which must be written in Italian or English. The research project will be discussed during the oral exam.
Evaluation of academic qualifications (Maximum score: 20 out of 80)	Master's thesis: max 5 points University career (exams taken with the relative grades and final grade): max 4 points Research and/or study activities in foreign institutions: max 2 points Professional experiences and other qualifications that each candidate considers useful: max 4 points Research project submitted by the candidate: max 5 points Before of the oral exam, the evaluation of academic qualification results will be published on the Call webpage.
Evaluation of the oral exam (Maximum score: 60 out of 80)	Oral exam: maximum score 60 out of 80 points The minimum score for a positive oral exam will be at least 40 out of 80 points. The foreign language subject to verification will be English.
Topics of the oral examination	The oral test, aimed at ascertaining the candidate aptitude for scientific research, will focus on the discussion of issues related to the PhD program topics and the research project presented by the candidate. The oral exam will include a verification of the English language knowledge based on reading and translation of sections of a scientific text.
Exam dates and location	The examinations schedule will be published on the Call webpage by the deadline of the application call.
Contact to information	Contacts of the course: Prof. Andrea Luigi Facci: andrea.facci@unitus.it Prof. Giuseppe Calabrò e-mail: giuseppe.calabro@unitus.it