

PhD PROGRAM IN “PLANT AND ANIMAL SCIENCES”					
Coordinator	Prof. Roberta BERNINI				
Department	Department of Agriculture and Forest Sciences				
Program duration	3 years: 1 st January 2023 - 31 st December 2025 Thesis Defence: within July 2026				
Program objectives	<p>The PhD program aims to train researchers of high scientific qualification able of addressing the various aspects of research in the agricultural sciences, from planning a research project to its implementation, from the interpretation of data to the presentation of results, the writing of articles in scientific journals and, where possible, patents.</p> <p>Over the course of the three years, the PhD students develop research topics and carry out training activities with an innovative and interdisciplinary approach thanks to the different scientific skills of the members of the Academic Board in the fields of agricultural, biological and chemical sciences and the possibility of carrying out internships and periods of research and study abroad at Universities and research institutes of high scientific qualification.</p> <p>Research topics are agronomy, animal husbandry, biotechnologies, plant breeding, plant protection, soil science, applications of nanomaterials in agriculture, natural organic compounds, valorisation of agro-industrial wastes, project and development of methodologies for the synthesis of bioactive molecules, production of recombinant products of high added value from plant materials, biosensors for the environmental monitoring and the production chain, study of the role of the environmental factors on the agricultural productions, landscape planning, aspects of technological and nutritional quality of products, food and production safety, models for product, process and organizational innovation of the agro-food system.</p>				
Places available	<p>The scholarships are intended to realize a research projects in the following field:</p> <table border="1"> <tbody> <tr> <td rowspan="3">PNRR Scholarships AGRITECH</td> <td>1. <i>“Qualitative-quantitative assessment of the microbial endophytic community of beech specimens along environmental gradients”</i> Contact person: Prof. Stefano Speranza, Angelo Mazzaglia</td> </tr> <tr> <td>2. <i>“Effectiveness of new biostimulants in improving water stress tolerance in horticultural species”</i> Contact person: Dr. Mariateresa Cardarelli</td> </tr> <tr> <td>3. <i>“Use of NIRS technology and sensors to improve the efficiency of dairy ruminants”</i></td> </tr> </tbody> </table>	PNRR Scholarships AGRITECH	1. <i>“Qualitative-quantitative assessment of the microbial endophytic community of beech specimens along environmental gradients”</i> Contact person: Prof. Stefano Speranza, Angelo Mazzaglia	2. <i>“Effectiveness of new biostimulants in improving water stress tolerance in horticultural species”</i> Contact person: Dr. Mariateresa Cardarelli	3. <i>“Use of NIRS technology and sensors to improve the efficiency of dairy ruminants”</i>
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		<p>Referente: Prof. Umberto Bernabucci</p> <p>4. <i>“Characterization of molecular and biochemical mechanisms contributing to improved adaptation to (a)biotic stresses, production, and quality traits in wheat”</i> Contact person: Prof. Stefania Masci, Prof. Daniel Savatin</p> <p>5. <i>“Development of predictive models of greenhouse gas emissions in ruminant systems in relation to the species, farming system and animals characteristic”</i> Contact person: Prof. Andrea Vitali</p>
Admission requirements	<p>Admission is open to candidates of any nationality and age who have one of the following requirements by the deadline of the call for application:</p> <ul style="list-style-type: none"> ▪ Italian degree “Laurea Vecchio Ordinamento” ▪ Italian degree “Laurea Specialistica” or “Magistrale” ▪ International academic qualification (degree) awarded in a foreign University or in the context of inter-university cooperation and mobility agreements. <p>Admission is also open to students will obtain their degree within the graduation session in December 2022.</p>	
Evaluation of candidates (Maximum score: 80/80)	<p>The candidates are evaluated by qualifications and exam (interview). The maximum score assigned is 80/80.</p>	
Evaluation of the qualifications (Maximum score: 15/80)	<p>The evaluation of qualifications concerns the candidate's educational path, professional and research experiences. In particular, the following qualifications are evaluated:</p> <ul style="list-style-type: none"> ▪ Degree thesis accompanied by an abstract in English language ▪ University career (passed exams and graduation marks) ▪ Scientific publications relating to the research topics of the PhD Program ▪ Participation in research projects ▪ Professional experience and other qualifications held by the candidate in the <i>curriculum vitae et studiorum</i>, including any letters of introduction from university professors ▪ Research project proposed. <p>The maximum score is 15/80. Before the interview, the scores assigned to the candidates will be published on the University website address: http://www.unitus.it/it/unitus/post-lauream1/articolo/bando-cn-agritech-call-for-applications-agritech-nc</p>	
Evaluation of the interview (Maximum score: 65/80)	<p>The interview is aimed at ascertaining the preparation and aptitudes of candidates for scientific research and includes the assessment of knowledge of the English language. The minimum score is 40/65 and the maximum is 65/80.</p>	
Topics of the interview	<p>The interview, aimed at ascertaining the aptitude of candidates for scientific research, will focus on the presentation and discussion of</p>	

	<p>the proposed research project, on the research topics of the PhD program and on knowledge of the English language.</p> <p>The project, described at most in 4 pages, can be written in Italian or English according to the model shown on the University website address: http://www.unitus.it/it/unitus/post-lauream1/articolo/bando-cn-agritech-call-for-applications-agritech-nc</p> <p>The interview includes the assessment of knowledge of the English language by reading and translating some paragraphs of a scientific text.</p> <p>After the interview, the scores will be published on the University website address: http://www.unitus.it/it/unitus/post-lauream1/articolo/bando-cn-agritech-call-for-applications-agritech-nc</p>
Timetable and interview location	<p>The exams (qualifications, interview) will be held between 7 and 19 December, 2022.</p> <p>The calendar of the interview will be published on the University website address: http://www.unitus.it/it/unitus/post-lauream1/articolo/bando-cn-agritech-call-for-applications-agritech-nc within the deadline of the Call for Application.</p>
Contacts for information	<p>Prof. Roberta BERNINI E-mail: dottorato.spva@unitus.it; roberta.bernini@unitus.it</p>