# ANNEX 1/d

**PhD program:** AGRICULTURAL, FOREST AND FOOD SCIENCES  
**ASSOCIATED WITH SALERNO UNIVERSITY**  

**XXXIX CYCLE – a.y. 2023-2024**

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<tr>
<th>Department</th>
<th>School of Agriculture, Forest, Food and Environmental Sciences (SAFE) - Potenza</th>
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| Coordinator | Prof.ssa Teresa ZOTTA  
e-mail: dottoratosafe@unibas.it |
| Duration   | 3 years |
| Web site   | [https://sites.google.com/unibas.it/safe/phd/](https://sites.google.com/unibas.it/safe/phd/) |

### Curricula

1. Agricultural, Forest and Environmental Science  
2. Food Sciences and Engineering

#### Aims and topics

The objective of PhD course is to provide to the PhD students a solid preparation, in terms of both knowledge and skills of basic aspects (e.g. scientific method, ability in expression and presentation, ability to manage research projects and working groups, teaching skills) and applications (e.g. transfer and evaluation of scientific-technological innovations), in order to carry out research and management activities at qualitatively high levels. Specifically, the preparation of doctoral students will be focused to train figures able to:

- a) develop and propose research projects to local, national or international institutions, as well as to private industries;
- b) identify the needs of research according to their scientific, social and economic impact;
- c) carry out research in one or more specific sectors of PhD course at high quality levels (including bibliographic research, planning and development of experimental activities, data analysis);
- d) communicate and disseminate the results of research to scientific and non-scientific community (oral communications, publications on high-impact journals);
- e) transfer knowledge through teaching activities to academic institutions, industries, non-scientific communities;
- f) transfer the results of research in public and private sectors (knowing the issues related to Intellectual Property Rights, designing spin-offs and start-ups).

#### Admission requirements

- a) University degree obtained under the previous educational systems (ex ante D.M. 509/99, whose legal course has at least a four-year term);
- b) Laurea specialistica/magistrale (D.M. 509/99 and Dm 270/2004);
- c) Academic title obtained abroad and eligible for access to the PhD program, previously recognized by academic authorities, even in the context of inter-university cooperation and mobility agreements. In the absence of such approval, the candidate must apply a request in the application form according to the Art. 3 of this call.

#### Available positions

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<th>Available positions</th>
<th>11</th>
<th>With scholarship</th>
<th>Without scholarship</th>
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<td>Type of scholarships</td>
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**Type of scholarships**  
(Description awarding entity and research topic)

- **D.M. 118/2023 Basilicata University**

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1 scholarship "Digital and environmental transitions”

Topic: "Sustainable systems, technologies and processes for the agri-food sector. Development of innovative systems for the automation and control of industrial plants and processes, for energy saving and optimization of the quality of food products. New precision technologies for the non-destructive analysis of products and processes in field and farm".
2 scholarships “PNRR-Research”

on one of the following topics:

1) Genetic, molecular and phenotyping approaches for the analysis, preservation, valorisation and sustainable use of plant genetic biodiversity and for the selection of varieties resilient to climate changes;

2) Alternative methodologies for the valorisation of livestock productions.

1 scholarship "Public administration"

Topic: "Terrestrial laser scanner and remote sensing for fuel load analysis and fire behaviour assessment: forest monitoring digitalisation, three-dimensional predictive modelling of fire risk; implementation of prevention policies and fire-smart management of forest resources in a climate change scenario".

A period in the company or research center or public administration and abroad is mandatory.

2 scholarships “PNRR-Research”

on one of the following topics:

1) Sustainable agro-systems resilient to climate changes: monitoring and management of insects of agricultural interest; genetic-molecular approaches for the study of plant response to stresses and development of resilient varieties to climate changes;

2) New models of circular economy and sustainability in agriculture through the valorisation and recycling of wastes, co-products and by-products from the primary and agro-industrial sectors for the development of healthy products.

A period abroad is mandatory.
1 scholarship in collaboration with CREA – Pontecagnano (SA)

Topic: “Agronomic optimisation water and nutritional input in processing tomato crops through precision agriculture approaches”;

1 scholarship in collaboration “MANIOLA smart sensing – Nocera Superiore (SA)”

Topic: “Monitoring systems of microclimatic parameters in fig orchards under conditions of different quality and quantity of radiation”;

1 scholarship in collaboration “BARILLA G. e R. Fratelli – Sede operativa di Melfi (PZ)”

Topic: “Characterization of doughs and flours for naturally leavened bakery products: correlation with the production parameters and finished product quality, with a view to continuous improvement”.

2 scholarships in collaboration “M&C FABBRICA ALIMENTARE Srl – Tito Scalo (PZ)”

on one of the following topics:

1) Technological innovation in the dry pasta sector - technical-economic assessments in the development of new top-of-the-range product lines;

2) Plants and technologies to control the process, manage quality and improve environmental performance in the production of dry pasta.

A period in the company and abroad is mandatory.

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<th>Positions reserved for graduates in foreign universities</th>
<th>With scholarship</th>
<th>Without scholarship</th>
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Admission procedure

The admission procedure is conducted through the:

a) evaluation of qualifications

b) evaluation, as part of the interview, of a research project, drawn up in Italian and English using the format set out in Annex C to the call for proposals, concerning the subject/type of grant for which you are competing (Ministerial Decree 117/2023 and Ministerial Decree 118/2023)

c) video conference interview using google meet
### Evaluation criteria

| a) evaluation of qualifications: up to a maximum of 25 points |
| minimum score to access the interview 15 points |
| b) interview: up to a maximum of 75 points |
| the interview is passed for a score not less than 45 points |
| Minimum total score: 60 out/100. |

### Assessable qualifications

| Graduation Thesis (The graduate candidate must attach the entire thesis; the candidate graduating a summary of the thesis project, in Italian or English, of max 16.000 characters) | max 10 points |
| Degree mark (For candidates who have not yet obtained the degree, the weighted average of the marks obtained in all the exams of the degree program, taken on the date of submission of the application for admission, will be evaluated) | max 10 points |
| Scientific publications (Articles in national and international scientific journals, proceedings of scientific conferences, books or book chapters) | max 3 points |
| Other titles (University degrees or Master Specialization) | max 2 point |

### Interview program

The interview, which can be held in Italian or English, will focus on the discussion of the submitted research project and is aimed at ascertaining the candidate's scientific interests and aptitude for research.

During the interview, the knowledge of the Italian language will be ascertained for foreign candidates.

### Foreign language

| English (knowledge of a foreign language will be assessed during the interview) |

### Schedule of the admission tests

| Evaluation of qualifications: results will be available from September 11, 2023 on the website [http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html](http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html) |
| Day of the video conference interview: September 13 and 14, 2023 |