### ANNEX C

**PhD COURSE IN**

**BIOTECHNOLOGY AND SMART PRACTICES FOR A SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES, FOOD AND AGRICULTURE - XXXIX cycle**

*academic year 2023/2024*

**Coordinator:** Prof.ssa Maria Luisa Amodio (PO) - SSD: AGR/09 - University of Foggia

**Scientific and disciplinary sectors**

| AGR/01; AGR/02; AGR/03; AGR/04; AGR/07; AGR/09; AGR/10; AGR/11; AGR/12; AGR/15; AGR/16; AGR/19; VET/04; VET/06; CHIM/01; CHIM/06; ING-IND/08; ING-IND/35; FIS/01; BIO/04; BIO/09 |

**Administrative headquarters:** DEPARTMENT OF AGRICULTURAL SCIENCE, FOOD, NATURAL RESOURCES AND ENGINEERING

**Length:** 3 anni

**Curriculum:**

1. **SUSTAINABLE AGRICULTURE, NATURAL RESOURCES AND BIODIVERSITY:** Sustainable agriculture, management of natural resources and biodiversity. Throughout this curriculum, skills for the sustainable management of natural resources and agriculture will be developed, with particular regard to precision agriculture and smart farming, decision support systems, reduction of inputs in agriculture, logistics and management of inputs and production outputs (Internet of things), quality of production, environmental protection, animal, plant and microbial biodiversity, bio-industry for the exploitation of waste and non-food products to end the cycle, biorefinery, biogenetics.

2. **EMERGING TECHNOLOGIES FOR ENSURING FOOD QUALITY AND SAFETY:** Skills for the precise management of processes, logistics and management of processing inputs and outputs (Internet of things) will be developed as well as quality, traceability and safety of food products, biotechnologies and innovative technologies with low environmental impact, in order to increase the added value of the products maximizing efficiency and reducing waste; assessment of the sustainability of products and processes, strategies to increase the consumers and actors' awareness in the supply chain on environmental issues; marketing of food products obtained in a sustainable way.

**TOTAL NUMBER OF POSITIONS AVAILABLE:** n. 8
N. 8 POSITIONS WITH SCHOLARSHIP of which:
n. 1 position through scholarship granted by Università of Foggia
n. 4 positions through scholarship granted by D.M. 118/2023 PNRR 4.1 PNRR Research
n. 1 position through scholarship granted by D.M. 118/2023 PNRR 4.1 Public Administration
n. 2 positions through scholarship granted by D.M. 117/2023 PNRR cofunded by Enterprise

COURSE DESCRIPTION

PROGRAM, OBJECTIVES AND CONSISTENCY WITH THE PNRR
persuant to the DD.MM. nos. 117/2023 and 118/2023

https://www.unifg.it/en/node/2972

SCHOLARSHIPS

n. 1 SCHOLARSHIP granted by
DM 117/2023 PNRR co-funded by Pastificio Attilio Mastromauro - Granoro S.r.l

**Topic:** Development and characterization of new durum wheat genotypes for the production of high quality Italian pasta.

n. 1 SCHOLARSHIPS granted by
DM 117/2023 PNRR co-funded by Bel Agri S.r.l

**Topic:** Development of biorefinery processes for the conversion of agro-industrial digestate into economically valuable and sustainable bioproducts for agriculture.

ADMISSION PREREQUISITES

Master’s Degree in:

- LM-3 Landscape architecture
- LM-6 Biology
- LM-7 Agricultural biotechnologies
- LM-8 Industrial biotechnology
- LM-9 Medical, veterinary and pharmaceutical biotechnologies
- LM-17 Physics
- LM-18 Computer science
- LM-21 Biomedical engineering
- LM-22 Chemical engineering
- LM-23 Civil engineering
- LM-24 Construction engineering
- LM-25 Automation engineering
- LM-26 Safety engineering
- LM-27 Telecommunications engineering
- LM-28 Electrical engineering
- LM-29 Electronic engineering
- LM-30 Energy and nuclear engineering
- LM-31 Industrial engineering
- LM-32 Computer engineering
- LM-33 Mechanical engineering
- LM-35 Environment and territory engineering
- LM-41 Medicine and surgery
LM-42 Veterinary medicine
LM-48 Urban and environmental development planning
LM-52 International relations
LM-53 Science and engineering of materials
LM-54 Chemical Sciences
LM-56 Economic Sciences
LM-59 Sciences of public communication, business and advertising
LM-60 Natural sciences
LM-61 Human Nutrition Sciences
LM-69 Agricultural sciences and technologies
LM-70 Food science and technology
LM-71 Sciences and technologies of industrial chemistry
LM-73 Forestry and environmental sciences and technologies
LM-74 Geological sciences and technologies
LM-75 Sciences and technologies for the environment and the territory
LM-77 Economics and business sciences
LM-79 Geophysical Sciences
LM-82 Statistical Sciences
LM-83 Statistical, actuarial and financial sciences
LM-86 Zootechnical sciences and animal technologies
LM / GASTR Economic and social sciences of gastronomy
LM Sc. Mat. Materials sciences
LM-53. Materials engineering
6 / S (Master of biology)
7 / S (Master of agricultural biotechnology)
8 / S (Master of industrial biotechnology)
9 / S (Master of medical, veterinary and pharmaceutical biotechnologies)
19 / S (Master of finance)
20 / S (Master of physics)
23 / S (Master of computer science)
26 / S (Master of biomedical engineering)
27 / S (Master of chemical engineering)
29 / S (Master of automation engineering)
30 / S (Master of telecommunications engineering)
31 / S (Master of electrical engineering)
34 / S (Master of industrial engineering)
35 / S (Master of computer engineering)
36 / S (Master of mechanical engineering)
38 / S (Master of environment and territory engineering)
46 / S (Master of medicine and surgery)
47 / S (Master of veterinary medicine)
50 / S (Master of mathematical-physical modeling for engineering)
54 / S (Master of urban and environmental development planning)
59 / S (Master of advertising and corporate communication)
61 / S (Master of materials science and engineering)
62 / S (Master of chemical sciences)
64 / S (Master of economics)
68 / S (Master of natural sciences)
69 / S (Master of human nutrition sciences)
77 / S (Master of agricultural sciences and technologies)
78 / S (Master of agri-food sciences and technologies)
79 / S (Master of agri-zootechnical sciences and technologies)
81 / S (Master of sciences and technologies of industrial chemistry)
82 / S (Master of sciences and technologies for the environment and the territory)
83 / S (Master of economic sciences for the environment and culture)
84 / S (Master of economics-business sciences)
85 / S (Master of geophysical sciences)
86 / S (Master of geological sciences)
90 / S (Master of demographic and social statistics)
91 / S (Master of economic, financial and actuarial statistics)

ADMISSION PROCEDURES

The selection will be based on the assessment of qualifications, research project and oral exam.

The assessment will take place pursuant to art. no. 6 and 7 of the Call.
Foreign candidates can choose to take the admission test in English.

Qualifications titles should be listed as follows:

Degree and final grade: admission degree and final grade

With regards to this qualification, if candidates hold a foreign degree the examination board has the right to amend or exclude this qualification in favour of the following ones

Degrees and academic qualifications:

- Additional degrees over the admission criteria
- PhD
- Postgraduate and Master’s degree
- Postgraduate specialization courses
- Specialization diplomas

Research activity:

at qualified Italian and foreign institutes relevant to the contents covered throughout the doctoral course applied for. Participation in European projects.

Please indicate the type of position, duration and institute
Please provide project, duration and role details

Scientific publications and patents:

- Journal publications on SCOPUS
- Patents
- Publications not present on SCOPUS
- Book Chapter
- Conference proceedings
- Abstracts/posters presented at conferences

Awards:

- Please provide reason, qualification and date of the award/s.
### Oral exam

During the oral exam, the research project presented by the candidate at the time of the application will also be discussed and the knowledge of the English language will be ascertained. It will be up to the candidate to take the exam in English.

### ADMISSION TEST CALENDAR AND VENUE


### Other useful information


### Useful contacts

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<thead>
<tr>
<th>Role</th>
<th>Contact Person</th>
<th>Email</th>
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</thead>
<tbody>
<tr>
<td>Educational/scientific contact person</td>
<td>Prof.ssa Maria Luisa Amodio</td>
<td><a href="mailto:marialuisa.amodio@unifg.it">marialuisa.amodio@unifg.it</a></td>
</tr>
<tr>
<td>Administrative contact person</td>
<td>Dott.ssa Maria Grazia Mariella</td>
<td><a href="mailto:ufficiodottorato@unifg.it">ufficiodottorato@unifg.it</a></td>
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