**ANNEX 1/a**

**PhD program: CITIES AND LANDSCAPES: ARCHITECTURE, ARCHAEOLOGY, CULTURAL HERITAGE, HISTORY AND RESOURCES**

**XXXIX CYCLE – a.y. 2023-2024**

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| **Department** | **Department of European and Mediterranean Cultures: Architecture, Environment, Cultural Heritages (DICEM) - Matera** |
| **Coordinator** | Prof.ssa Antonella Grazia Maria Immacolata Romana GUIDA<br>e-mail: antonella.guida@unibas.it |
| **Duration** | 3 years |
| **Web site** | http://dicem.unibas.it/site/home/ricerca/dottorati-di-ricerca.html |
| **Curricula** | Not provided |
| **Aims and topics** | The primary objective is the acquisition of an appropriate knowledge and of the effective theoretical and methodological tools that allow to operate with specific skills and disciplinary specializations and with a real multi - and interdisciplinary capability, in an aware dialogue between humanistic and technical-scientific knowledge for the study, the analysis and the interpretation of the phenomenon of cities and landscapes, with the use of innovative technologies and the design of interventions aimed at their sustainable development:<br>• Analysis, interpretation, diagnostics, protection, recovery, enhancement and enjoyment of the architectural, environmental, heritage, historical, cultural, artistic and archaeological assets and of the tangible and intangible heritages and related administrative functions.<br>• Stratigraphic analysis of urban and rural contexts according to the methods of the total history and the global archeology of the landscapes .<br>• Study of natural, energy, water resources and effects of climate change, environmental quality and adaptation strategies for natural, rural and urban systems.<br>• Analysis of the evolutionary processes and the organizational models of the environment to small and large spatial and temporal scale, and projects for urban and landscape regeneration.<br>• Process analysis of land instability, natural hazards, environmental and soil protection, and planning of urban, rural and coastal landscapes.<br>• Analysis of rural and urban greening space, conservation of plant species in the natural environment and in the city.<br>• Use of innovative technologies. |
| **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);<br>b) Laurea specialistica/magistrale (D.M. 509/99 and D.M. 270/2004);<br>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. |

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| **Available positions** | **10** | **With scholarship** | **Without scholarship** |
| | | **8** | **2** |

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| **Type of scholarships**<br>(Description awarding entity and research topic) | **D.M. 118/2023** | **M4C1-INV.3.4**<br><br>**<u>1 Scholarship</u> "Digital and environmental transitions"**<br><br>on one of the following topics:<br><br>1) Digital atlas of rupestrians archaeological heritage. Tools and methods to realize a virtual platform on a Mediterranean scale;<br><br>2) Computational Approaches and Remote Sensing Techniques for the Interpretation, Monitoring and Conservation of Cultural Heritage.<br><br>**M4C1-INV.4.1**<br><br>**<u>2 Scholarships</u> "Public administration"**<br><br>on one of the following topics:<br><br>1) The 20th century architecture in Matera: an experimentation laboratory for the costruction of a city;<br><br>2) Modern Maratea and the Mediterranean: architecture as a medium for the re-signification of an invented landscape;<br><br>3) Recovery and enhancement of the historical heritage of Matera and Acquedotto Lucano: the water infrastructures during centuries;<br><br>4) Marginal Areas, Peripheries, and Small Towns as Laboratories of Social Innovation.<br><br>**<u>1 Scholarship</u> "Cultural heritage"**<br><br>on one of the following topics:<br><br>1) Circular economy and life cycle thinking for sustainable conservation of architectural heritage;<br><br>2) Control systems at the borders of the empire. Military architectures in the African roman context: the castra of Mauretania Tingitana.<br><br>A period in the company or research center or public administration and abroad is mandatory. |
| | **D.M. 117/2023** | **<u>1 scholarship in collaboration with the company</u> "ZESPRI INTERNATIONAL LIMITED (New Zeland)"**<br><br>Topic: "Understanding cell energy metabolism rewiring strategies adopted by kiwifruit plants undergoing waterlogging and soil hypoxia: functional characterization of the molecular mechanisms occurring in roots";<br><br>**<u>1 scholarship in collaboration with the company</u> "DIGIMAT Group (Matera)"**<br><br>Topic: "Digital models and management approaches for architectural heritage intervention strategies"; |

<table>
<tr><td></td><td></td><td colspan="2"><u>1 scholarship in collaboration with the company</u> "DIOTIMA S.R.L. (Matera) e HSH Informatica e Cultura S.r.l (Matera)"<br><br>Topic: "Archaeological map of Matera. Processes of data digitization on GIS platform and integrated design for the enhancement and management of the archaeological heritage".<br><br>A period in the company and abroad is mandatory.</td></tr>
<tr><td></td><td>FABRE - Consorzio di ricerca per la valutazione ed il monitoraggio di ponti, viadotti e altre strutture (Pisa)</td><td colspan="2"><u>1 scholarship</u><br><br>Topic: "Data analysis and management for risk assessment of existing bridges"<br><br>A period in the FABRE and abroad is mandatory.</td></tr>
<tr><td rowspan="2">Positions reserved for graduates in foreign universities</td><td rowspan="2"></td><td>With scholarship</td><td>Without scholarship</td></tr>
<tr><td>0</td><td>0</td></tr>
<tr><td>Positions without scholarship</td><td colspan="3">2<br>A period abroad is mandatory.</td></tr>
<tr><td>Admission procedure</td><td colspan="3">The admission procedure is conducted through the:<br><br>a) evaluation of qualifications<br><br>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 118/2023, Ministerial Decree 117/2023, another specific topic)<br><br>c) interview</td></tr>
<tr><td>Evaluation criteria</td><td colspan="3">a) evaluation of qualifications: up to a maximum of 25 points<br>minimum score to access the interview 15 points<br><br>b) interview: up to a maximum of 75 points<br>the interview is passed for a score not less than 45 points<br><br>Minimum total score: 60 out of 100.</td></tr>
<tr><td rowspan="4">Assessable qualifications</td><td colspan="2">Graduation Thesis<br>(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)</td><td>Up to 5 points</td></tr>
<tr><td colspan="2">Degree mark<br>(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)</td><td>Up to 15 points</td></tr>
<tr><td colspan="2">Scientific publications<br>(Articles in national and international scientific journals, proceedings of scientific conferences, books or book chapters)</td><td>Up to 3 points</td></tr>
<tr><td colspan="2">Other titles<br>(University degrees or Master Specialization, Research Grants, Scholarships, Erasmus scholarships and periods of activity abroad, …)</td><td>Up to 2 points</td></tr>
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| **Interview program** | The interview, which can be held in Italian, Spanish 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.<br><br>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 <u>September 11, 2023</u>** on the website http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html<br><br>**Day of the interview: <u>September 18, 2023 - 10:00 a.m.</u>**<br>Aula B 003 - Campus di via Lanera, 20 – Matera |

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| **ANNEX 1/b**<br><br>**PhD program: ENGINEERING FOR INNOVATION AND SUSTAINABLE DEVELOPMENT**<br><br>**XXXIX CYCLE – a.y. 2023-2024** | |
| **Department** | **Engineering School (SI-UniBas) - Potenza** |
| **Coordinator** | Prof.ssa Aurelia SOLE<br>e-mail: aurelia.sole@unibas.it |
| **Duration** | 3 years |
| **Web site** | http://ingegneria.unibas.it/site/home/offerta-formativa/dottorati-di-ricerca/articolo64.html |
| **Curricula** | **1. Methods and Technologies for Environmental Monitoring and Protection**<br>**1. Analysis and prevention of natural risks (seismic and landslide risks)**<br>**2. Industrial Engineering and Information Technologies** |
| **Aims and topics** | The IISS PhD program aims to provide the doctoral students with strong scientific basis, and to help them in developing the ability to carry out pure and applied research, as well as to contribute to the elaboration and implementation of innovative, efficient, eco-compatible and socially sustainable development models. The students will acquire special skills in one of the following areas: methods and strategies for monitoring, protection and sustainability of the environment; methods of analysis of natural hazard (in particular seismic and landslide) and risk mitigation; management of raw materials, energy systems and industrial production; territorial planning, methods and systems for the processing and transmission of information. Furthermore, they are expected to acquire transversal skills in the field of sensors, modelling and analysis of complex interacting systems and of technologies of general interest. The doctoral students are also formed to be able to operate in high education sectors, as well as to carry out highly qualified activities related to research, development and management in private companies and public institutions and entities.<br>The three curricula include activities consistent with the objectives of the National Recovery and Resilience Plan (PNRR).<br><br>**Curriculum "Methods and Technologies for Environmental Monitoring and Protection":**<br>Topics: Sensors and sensing technologies of environmental parameters; Integration and analysis of environmental data; Modelling monitoring, protection and preservation of the environment; Development of strategies and actions for prevention and resolution of environmental problems; Energy saving and distributed micro-generation; Data processing and applications with particular reference to COPERNICUS for environmental monitoring<br>The curriculum aims to train researchers with a high scientific qualification level able to understand, apply and develop innovation in the fields of: (a) investigation methodologies, (b) analysis and modelling of environmental problems, (c) mathematical models for the scenarios development in the territorial planning as well as in the risk analysis and prevention areas, (d) sensors and also (e) the adoption and development of interventions strategies aimed at their prevention, mitigation and resolution. Moreover, attention is paid to the economic aspects of sustainable development issues, mainly concerning both social and environmental reporting themes, also in the form of integrated reports as well as the management and policy of the agri-food system. A further focus deals with the theme of the sustainable business model, from both the public and private sector perspective.<br><br>**Curriculum "Analysis and prevention of natural risks (seismic and landslide risks"):**<br>Topics: Numerical and experimental approaches for the assessment of seismic vulnerability of structures; Methods and techniques for the mitigation and management of seismic risk; Theoretical and experimental analyses of geotechnical problems; Slope stability and landslide risk reduction; Non-linear analysis of structures; Data processing and applications with particular reference to COPERNICUS for environmental monitoring.<br>The curriculum aims to provide the doctoral students with the skills for operating in the fields of seismic and hydrogeological risks (for the latter, in particular, landslide risk), structural engineering, and geotechnical engineering. Strong physical-mathematical basis and knowledge of fundamental seismology are required. The students are supposed to |

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<tr><td></td><td colspan="3">acquire deep knowledge of: structural engineering, seismic engineering, geotechnical and foundation engineering, slope stability, al the types of monitoring systems, evaluation and mitigation of landslide and seismic risks (from the single construction or single slope scale to large areas scale). Within these subjects, original and innovative research must be developed, possibly in the view of green and sustainable solutions.<br><br>Curriculum "Industrial Engineering and Information Technologies":<br>Topics: Mechanical engineering design and applied mechanics, Mechanical technologies and industrial plants, Energy conversion systems, Engineering Thermodynamics and fluid flow machinery, Electromagnetism, Devices and systems for telecommunications, Automation and Mechatronics, Applied Physics.<br>The research project aims to train valuable researchers that are capable of proposing innovative approaches and strategies for the development of efficient and sustainable energy, propulsion and industrial production systems, as well as developing methodologies and technologies suitable to create and integrate highly complex interacting systems. Particular attention is paid to the generation and management of energy provided from alternative and conventional sources with innovative approaches and methodologies, to the design of propulsion systems and, more generally, to the problems of driving and operating machines. From the point of view of industrial production, the topics are focused on robotics, sensors, unconventional technologies for processing materials, on methods of experimental characterization of materials and mechanical structures, on the design and management of integrated production systems and of the related plants, on logistics, on the design of mechanical systems with innovative approaches also based on vibratory and tribological phenomena. From the point of view of information technologies, the topics are focused on the applications of electromagnetism and propagation, on autonomous systems, on electronics for biometric applications and on telecommunication systems.</td></tr>
<tr><td>Admission requirements</td><td colspan="3">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);<br>b) Laurea specialistica/magistrale (D.M. 509/99 and Dm 270/2004);<br>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.</td></tr>
<tr><td rowspan="2">Available positions</td><td rowspan="2">10</td><td>With scholarship</td><td>Without scholarship</td></tr>
<tr><td>9</td><td>1</td></tr>
<tr><td>Type of scholarships<br>(Description awarding entity and research topic)</td><td>D.M. 118/2023<br>M4C1-INV.4.1</td><td colspan="2"><u>3 Scholarships</u> "PNRR-Research"<br><br>on one of the following topics:<br><br>1) Development of eco-sustainable materials with optimized tribological and mechanical properties;<br><br>2) Issues related to seismic and/or landslide risk;<br><br>3) Methods and technologies for monitoring and environmental protection.<br><br><u>1 Scholarship</u> "Public administration"<br><br>Topic: "Flood risk".<br><br>A period in the company or research center or public administration and abroad is mandatory</td></tr>
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<tr><td></td><td>D.M. 117/2023</td><td colspan="2"><u>1 scholarship in collaboration with the company</u><br>“RESTART ENGINEERING S.r.l. – Novellara (RE)”<br>Topic: “Integration of photovoltaic generation in low and medium voltage distribution networks and micro-grids in the presence of variable load”;<br><br><u>1 scholarship in collaboration with the company</u><br>“DTT S.c.a.r.l. – Frascati (RM)”<br>Topic: “Numerical modelling of remote handling systems”.<br><br>A period in the company and abroad is mandatory.</td></tr>
<tr><td></td><td>CNR IMAA [Tito Scalo (PZ)]</td><td colspan="2"><u>2 scholarships</u><br><br>on one of the following topics:<br><br>1) Methods and technologies for the investigation of the atmosphere, in particular for parameters like greenhouse gases, aerosol and thermodynamic variables;<br><br>2) Data Science and Applied Geophysics for the mitigation of the geological risks in urban areas.<br><br>A period in the CNR-IMAA and abroad is mandatory.</td></tr>
<tr><td></td><td>ENEA</td><td colspan="2"><u>1 scholarship</u><br>Topic: “Seismic risk from the sub-regional scale to individual structures and infrastructure by means the development of automated multi-parameter and multi-criteria models and systems”.<br><br>A period in the ENEA and abroad is mandatory.</td></tr>
<tr><td rowspan="2">Positions reserved for graduates in foreign universities</td><td rowspan="2"></td><td>With scholarship</td><td>Without scholarship</td></tr>
<tr><td>0</td><td>0</td></tr>
<tr><td>Positions without scholarship</td><td colspan="3">1<br>A period abroad is mandatory.</td></tr>
<tr><td>Admission procedure</td><td colspan="3">The admission procedure is conducted through the:<br><br>a) evaluation of qualifications<br><br>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, Ministerial Decree 118/2023, another specific topic)<br><br>c) interview</td></tr>
<tr><td>Evaluation criteria</td><td colspan="3">a) evaluation of qualifications: up to a maximum of 25 points<br>minimum score to access the interview 15 points<br><br>b) interview: up to a maximum of 75 points<br>the interview is passed for a score not less than 45 points<br><br>Minimum total score: 60 out of 100</td></tr>
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| **Assessable qualifications** | **Graduation Thesis**<br>(The candidate must attach a summary of the thesis, in Italian or English, of max 16.000 characters) | Up to **5** points |
| | **Degree mark**<br>(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) | Up to **16** points |
| | **Scientific publications**<br>(Articles in national and international scientific journals, proceedings of scientific conferences, books or book chapters) | Up to **2** points |
| | **Other titles**<br>(University degrees or Master Specialization, Research Grants, Scholarships, Erasmus scholarships and periods of activity abroad, …) | Up to **2** points |
| **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.<br><br>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 <u>September 15, 2023</u>**<br>on the website http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html<br><br>**Day of the interview: <u>September 19, 2023 - 9:30 a.m.</u>**<br><br>Room Amatucci, V piano – School of Engineering – Macchia Romana Campus, 85100 Potenza | |

**ANNEX 1/c**

**PhD program: SCIENCE**

**XXXIX CYCLE – a.y. 2023-2024**

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| **Department** | **Department of Sciences - Potenza** | | |
| **Coordinator** | Prof.ssa Patrizia FALABELLA<br>e-mail: patrizia.falabella@unibas.it | | |
| **Duration** | 3 years | | |
| **Web site** | http://scienze.unibas.it/site/home/didattica/offerta-post-laurea.html | | |
| **Curricula** | **1. Applied Biology**<br>**2. Geo-Sciences**<br>**3. Chemical Sciences** | | |
| **Aims and topics** | The Ph.D. "Science" brings together the educational and research experiences already gained, in the field of tertiary education, within the Department of Science. The course fits into the interdisciplinary field of chemical, geological, biological, pharmaceutical and natural sciences and is intended to provide students with tools for applied research in animal, plant, microbial and environmental biology, also through a One Health approach. The Ph.D. in "Science," incorporating the principles of the Program for a "Zero Waste Europe," aims to provide Ph.D. students with the basic concepts for the proper use of natural resources, green chemistry and the circular economy, i.e., an industrial economy in which any innovation in the production cycle must aspire to zero residue, aiming to reuse any material already used in the process, the development of new green technologies and processes and the design of new eco-friendly products. The course aims to provide the skills needed to carry out, at universities, research centers, public institutions or private entities, highly qualified research activities while contributing to the realization of the European Higher Education Area and the European Research Area and to the professional training of PhDs in line with the requirements of the recruitment policies of the National Recovery and Resilience Plan. The aim is to provide students with a solid preparation in both scientific knowledge and applied solutions (scientific method, ability to write and manage research projects, patenting skills, etc.), in order to conduct advanced research and experimentation and to know how to evaluate and exploit the results. In particular, the course aims to provide the tools to work in the fields of biology and chemistry, both basic and applied, as well as in the fields of environmental control and monitoring, control and use of resources and geo-resources, and the study of systems of geological interest. | | |
| **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);<br>b) Laurea specialistica/magistrale (D.M. 509/99 and Dm 270/2004);<br>c) Academic title obtained abroad and eligible for access to the PhD programme, 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** | **6** | **With scholarship**<br>**6** | **Without scholarship**<br>**0** |

<table>
<tr><td rowspan="3">Type of scholarships<br>(Description awarding entity and research topic)</td><td>D.M. 118/2023</td><td colspan="2">M4C1-INV.3.4<br><br><u>1 scholarship</u> “Digital and environmental transitions”<br><br>Topic: “Valorization of processing residues from the agri-food industry to obtain high-value healthy extracts”.<br><br>M4C1-INV.4.1<br><br><u>3 Scholarships</u> “PNRR-Research”<br><br>on one of the following topics:<br><br>1) Valorization of by-products deriving from the processing of mushrooms as a source of bioactive compounds and enzymes of industrial interest;<br><br>2) Integrated geological and structural analyses of the axial zone of the southern Apennine fold-and-thrust belt;<br><br>3) The gut microbiota in Duchenne muscular dystrophy (DMD): role of the transsulfuration pathway as a new therapeutic target:<br><br>A period in the company or research center and abroad is mandatory.</td></tr>
<tr><td>Borse D.M. 117/2023</td><td colspan="2"><u>1 scholarship</u> <u>in collaboration with the company</u> “AGRIBIOSANA S.r.l. – Pietragalla (PZ)”<br><br>Topic: “Use of polymers and insect frass as innovative and eco-sustainable biofertilizers”.<br><br>A period in the company and abroad is mandatory.</td></tr>
<tr><td>ENEA</td><td colspan="2"><u>1 scholarship</u><br><br>Topic: “Production of hydrogen from biomass through gasification and reforming processes catalytic, electrolysis”.<br><br>A period in the ENEA and abroad is mandatory.</td></tr>
<tr><td rowspan="2">Positions reserved for graduates in foreign universities</td><td rowspan="2"></td><td>With scholarship</td><td>Without scholarship</td></tr>
<tr><td>0</td><td>0</td></tr>
<tr><td>Admission procedure</td><td colspan="3">The admission procedure is conducted through the:<br>a) evaluation of qualifications<br>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, Ministerial Decree 118/2023, another specific topic)<br>c) video conference interview using google meet</td></tr>
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<tr><td>Evaluation criteria</td><td colspan="2">a) evaluation of qualifications: up to a maximum of 25 points<br>minimum score to access the interview 15 points<br>b) interview: up to a maximum of 75 points<br>the interview is passed for a score not less than 45 points<br><br>Minimum total score: 60 out of 100</td></tr>
<tr><td rowspan="4">Assessable qualifications</td><td>Graduation Thesis<br>(The candidate must attach a summary of the thesis, in Italian or English, of max 16.000 characters)</td><td>Up to 5 points</td></tr>
<tr><td>Degree mark<br>(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)</td><td>Up to 16 points</td></tr>
<tr><td>Scientific publications<br>(Articles in national and international scientific journals, proceedings of scientific conferences, poster, books or book chapters)</td><td>Up to 2 points</td></tr>
<tr><td>Other titles<br>(University degrees or Master Specialization, Research Grants, Scholarships, Erasmus scholarships and periods of activity abroad)</td><td>Up to 2 points</td></tr>
<tr><td>Interview program</td><td colspan="2">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.<br><br>During the interview, the knowledge of the Italian language will be ascertained for foreign candidates.</td></tr>
<tr><td>Foreign language</td><td colspan="2">English (knowledge of a foreign language will be assessed during the interview)</td></tr>
<tr><td>Schedule of the admission tests</td><td colspan="2">Evaluation of qualifications: results will be available from <u>September 11, 2023</u><br>on the website http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html<br><br>Day of the video conference interview: <u>September 14, 2023 - 10:30 a.m.</u></td></tr>
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**ANNEX 1/d**

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

**XXXIX CYCLE – a.y. 2023-2024**

<table>
<tr><td>Department</td><td colspan="3">School of Agriculture, Forest, Food and Environmental Sciences (SAFE) - Potenza</td></tr>
<tr><td>Coordinator</td><td colspan="3">Prof.ssa Teresa ZOTTA<br>e-mail: dottoratosafe@unibas.it</td></tr>
<tr><td>Duration</td><td colspan="3">3 years</td></tr>
<tr><td>Web site</td><td colspan="3">https://sites.google.com/unibas.it/safe-phd/</td></tr>
<tr><td>Curricula</td><td colspan="3">1. Agricultural, Forest and Environmental Science<br>2. Food Sciences and Engineering</td></tr>
<tr><td>Aims and topics</td><td colspan="3">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.<br>Specifically, the preparation of doctoral students will be focused to train figures able to:<br>a) develop and propose research projects to local, national or international institutions, as well as to private industries;<br>b) identify the needs of research according to their scientific, social and economic impact;<br>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);<br>d) communicate and disseminate the results of research to scientific and non-scientific community (oral communications, publications on high-impact journals);<br>e) transfer knowledge through teaching activities to academic institutions, industries, non-scientific communities;<br>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).</td></tr>
<tr><td>Admission requirements</td><td colspan="3">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);<br>b) Laurea specialistica/magistrale (D.M. 509/99 and Dm 270/2004);<br>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.</td></tr>
<tr><td rowspan="2">Available positions</td><td rowspan="2">11</td><td>With scholarship</td><td>Without scholarship</td></tr>
<tr><td>11</td><td>0</td></tr>
<tr><td>Type of scholarships<br>(Description awarding entity and research topic)</td><td>D.M. 118/2023<br>Basilicata University</td><td colspan="2">M4C1-INV. 3.4<br><br><u>1 scholarship</u> “Digital and environmental transitions”<br><br>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”.</td></tr>
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| | | **M4C1-INV. 4.1**<br><br>**<u>2 scholarships</u> "PNRR-Research"**<br><br>on one of the following topics:<br><br>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;<br><br>2) Alternative methodologies for the valorisation of livestock productions.<br><br>**<u>1 scholarship</u> "Public administration""**<br><br>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".<br><br>A period in the company or research center or public administration and abroad is mandatory. |
| | **D.M. 118/2023**<br>**Salerno University** | **M4C1-INV. 4.1**<br><br>**<u>2 scholarships</u> "PNRR-Research"**<br><br>on one of the following topics:<br><br>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;<br><br>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.<br><br>A period abroad is mandatory. |

<table>
<tr><td></td><td>D.M. 117/2023</td><td colspan="2"><u>1 scholarship</u><br>in collaboration with CREA – Pontecagnano (SA)<br><br>Topic: "Agronomic optimisation water and nutritional input in processing tomato crops through precision agriculture approaches";<br><br><u>1 scholarship</u><br>in collaboration "MANIOLA smart sensing – Nocera Superiore (SA)"<br><br>Topic: "Monitoring systems of microclimatic parameters in fig orchards under conditions of different quality and quantity of radiation";<br><br><u>1 scholarship</u><br>in collaboration "BARILLA G. e R. Fratelli – Sede operativa di Melfi (PZ)"<br><br>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".<br><br><u>2 scholarship</u><br>in collaboration "M&C FABBRICA ALIMENTARE Srl – Tito Scalo (PZ)"<br><br>on one of the following topics:<br><br>1) Technological innovation in the dry pasta sector - technical-economic assessments in the development of new top-of-the-range product lines;<br><br>2) Plants and technologies to control the process, manage quality and improve environmental performance in the production of dry pasta.<br><br>A period in the company and abroad is mandatory.</td></tr>
<tr><td>Positions reserved for graduates in foreign universities</td><td></td><td>With scholarship<br>0</td><td>Without scholarship<br>0</td></tr>
<tr><td>Positions without scholarship</td><td colspan="3">0</td></tr>
<tr><td>Admission procedure</td><td colspan="3">The admission procedure is conducted through the:<br><br>a) evaluation of qualifications<br><br>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)<br><br>c) video conference interview using google meet</td></tr>
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<tr><td>Evaluation criteria</td><td colspan="2">a) evaluation of qualifications: up to a maximum of 25 points<br>minimum score to access the interview 15 points<br><br>b) interview: up to a maximum of 75 points<br>the interview is passed for a score not less than 45 points<br><br>Minimum total score: 60 out/100.</td></tr>
<tr><td rowspan="4">Assessable qualifications</td><td>Graduation Thesis<br>(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)</td><td>max 10 points</td></tr>
<tr><td>Degree mark<br>(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)</td><td>max 10 points</td></tr>
<tr><td>Scientific publications<br>(Articles in national and international scientific journals, proceedings of scientific conferences, books or book chapters)</td><td>max 3 points</td></tr>
<tr><td>Other titles<br>(University degrees or Master Specialization)</td><td>max 2 point</td></tr>
<tr><td>Interview program</td><td colspan="2">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.<br><br>During the interview, the knowledge of the Italian language will be ascertained for foreign candidates.</td></tr>
<tr><td>Foreign language</td><td colspan="2">English (knowledge of a foreign language will be assessed during the interview)</td></tr>
<tr><td>Schedule of the admission tests</td><td colspan="2">Evaluation of qualifications: results will be available from <u>September 11, 2023</u><br>on the website http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html<br><br>Day of the video conference interview: <u>September 13 and 14, 2023</u></td></tr>
</table>

**ANNEX 1/e**

**PhD program: HISTORY, CULTURE AND KNOWLEDGES OF MEDITERRANEAN EUROPE FROM ANTIQUITY TO CONTEMPORARY AGE**

**XXXIX CYCLE – a.y. 2023-2024**

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| **Department** | **Department of Human Sciences (DiSU) - Potenza** | | | |
| **Coordinator** | Prof. Michele BANDINI<br>e-mail: michele.bandini@unibas.it | | | |
| **Duration** | 3 years | | | |
| **Web site** | Dottorato DiSU (unibas.it)l | | | |
| **Curricula** | **1. Mediterranean civilizations, institutions and territory**<br>**2. Literatures, languages, cultures and knowledge in Mediterranean Europe** | | | |
| **Aims and topics** | The PhD course aims at providing PhD students with the skills required to high quality research, as a result of a strong integration between "knowledge" and "know-how". The planned three-year course focuses on a plurality of themes, from the theoretical debate to the history of mentalities and thought, literary history, social-economic as well as political-institutional history. The course will enable PhD students to conduct original research at a high scientific level, with a special concern for the analysis of the relations between Southern Italy and other countries and/or areas of European countries in the Mediterranean basin. The interest for the historical dynamics will be accompanied by a special focus on the artistic, linguistic, literary, philosophical, and generally cultural experience. Within both *curricula*, the PhD student will get, on one hand, the ability to exploit all possible sources for historical reconstruction (historical, archaeological, linguistic, literary, artistic, philosophical , as well as audiovisual documents); moreover, he will learn to consider the intellectual expressions in their historical dimension. | | | |
| **Admission requirements** | Degree/Master in one of the following classes of degrees:<br>LM-2, LM-11, LM-14, LM-15, LM-19, LM-37, LM-39, LM-43, LM-49, LM-62, LM-63, LM-65, LM-78, LM-84, LM-85, LM-85 bis, LM-89, LM-90, LM-92, 2/S, 15/S, 16/S, 17/S, 18/S, 24/S, 42/S, 44/S, 55/S, 70/S, 93/S, 94/S, 95/S, 96/S, 97/S, 98/S, 99/S, 101/S.<br>Old system Degrees treated in the same classes or master degrees above according to Ministerial Decree 9th July 2009.<br>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** | **7** | **With scholarship** | **Without scholarship** | **Supernumeraries Art. 23 Regulations of University of Basilicata** |
| | | **4** | **1** | **2** |
| **Type of scholarships** (Description awarding entity and research topic) | **D.M. 118/2023**<br>**M4C1-INV. 4.1** | **<u>1 scholarship</u> "PNRR-Research"**<br>Topic: "Study and valorisation of the literary, artistic and archaeological heritage with a view to digital transition".<br>**<u>1 scholarship</u> "Public administration"**<br>Topic: "Multidisciplinary study and valorisation of historical, philosophical and educational heritage". | | |

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| | | **<u>1 scholarship</u> "Cultural heritage"**<br><br>Topic: "Study and valorisation of literary, artistic, archaeological and librarian heritage".<br><br>A period in the company or research center or public administration and abroad and aboard is mandatory. | |
| **Supernumeraries positions Art. 23 Regulations of University of Basilicata** | **2 positions** | Candidates will have to present a research project related to on one of the following topics:<br><br>1) New learning spaces in the inclusive school;<br><br>2) The cloister and power. Maps and destinies of Benedictine monasteries in Apulia, Campania and Basilicata in the 14th-16th centuries: papacy, monarchy and feudality.<br><br>A period abroad is mandatory. | |
| **Positions reserved for graduates in foreign universities** | | **With scholarship**<br>**0** | **Without scholarship**<br>**0** |
| **Positions without scholarship** | **<u>1 position</u>**<br>A period abroad is mandatory. | | |
| **Admission procedure** | The admission procedure is conducted through the:<br><br>**a) evaluation of qualifications**<br><br>**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 118/2023 and specific topic for only supernumerary posts)<br><br>**c) video conference interview using google meet** | | |
| **Evaluation criteria** | **a) evaluation of qualifications:** up to a maximum of **25 points**<br>minimum score to access the interview **15 points**<br><br>**b) interview:** up to a maximum of **75 points**<br>The interview is passed for a score not less than **45 points**<br><br>**Minimum total score: 60 out/100.** | | |
| **Assessable qualifications** | **Graduation Thesis**<br>(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 **8** points |
| | **Degree mark**<br>(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 **8** points |

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| | **Reference letters**<br>(attach two letters of presentation from university professors, at least one of which is external to the University of Basilicata) | max **2** points |
| | **Scientific publications and Other titles**<br>(University degrees or Master Specialization, Research Grants, Scholarships, Erasmus scholarships and periods of activity abroad, …) | max **7** points |
| **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.<br><br>During the interview, the knowledge of the Italian language will be ascertained for foreign candidates. | |
| **Foreign language** | **English or French or German or Spanish** (knowledge of a foreign language will be assessed during the interview) | |
| **Schedule of the admission tests** | **Evaluation of qualifications: results will be available from <u>September 11, 2023</u>**<br>on the website http://portale.unibas.it/site/home/didattica/dottorati-di-ricerca.html<br><br>**Day of the video conference interview: <u>September 13, 2023 - 10:00</u>** | |