

	ALLEGATO 1 (SCHEDA INFORMATIVA) ANNEX1 (INFORMATION SHEET)		
			
	Finanziato dall'Unione europea - Next Generation EU		
	PH.D. COURSE	AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCE	
	CYCLE	39°	
	COORDINATOR	PROF. ANTONIO BIONDI	
	DURATION	TRE (3) ANNI - THREE (3) YEARS	
	DEPARTMENT	DEPARTMENT OF AGRICULTURE, FOOD AND ENVIRONMENT	
	PH.D. WEBSITE	https://www.diga.unict.it/dottorati/agricultural-food-and-environmental-science	
	MODALITA' DI SELEZIONE DEI CANDIDATI	VALUTAZIONE DEI TITOLI E PROVA ORALE	
	CANDIDATES SELECTION PROCEDURES	EVALUATION OF QUALIFICATIONS AND ORAL EXAMINATION	
	ORAL EXAMINATION DATE	07/07/2023	
	ORARIO DELLA PROVA ORALE/ ORAL EXAMINATION TIME	9:00:00 AM	
	PLACE OF THE ORAL EXAMINATION	Classroom G, 100 Santa Sofia, Catania	CANDIDATES WHO ARE UNABLE TO CARRY OUT THE ORAL EXAMINATION IN PERSON CAN CARRY IT OUT REMOTELY PROVIDED EMAIL COMMUNICATION TO THE COORDINATOR WITHIN TWO WEEKS BEFORE THE ORAL EXAMINATION
	AVAILABLE PLACES	25	
	FUNDING INSTITUTION OR PROGRAM	RESEARCH TOPIC AND SKILLS RELATED TO THE SCHOLARSHIP	ADDITIONAL INFORMATION
1	NRRP - SAMOTHRACE 1 - SPOKE 1	TOPIC: Development of smart sensors for water stress detection in precision agriculture. REQUIRED SKILLS: Soil hydrology, management of water resources in agriculture, wastewater reuse irrigation and drainage	Period abroad: 6 months
2	NRRP - SAMOTHRACE 2 - SPOKE 1	TOPIC: Toxic substances and harmful micro-organisms detection for environmental and food security. REQUIRED SKILLS: Diagnosis of diseases caused by plant pathogens, and their detection in irrigation water and plant products; molecular diagnostics	Period abroad: 6 months
3	NRRP - SAMOTHRACE 3 - SPOKE 1	TOPIC: Smart systems for the reduction of environmental impact of livestock production. REQUIRED SKILLS: Modelling of environmental issues by using artificial intelligence smart tools	Period abroad: 6 months
4	NRRP - AGRITECH 1 - SPOKE 2	TOPIC: Functional biodiversity for optimizing biological control of tomato and citrus pests. REQUIRED SKILLS: Applied Entomology, biological control, natural enemy biology and ecology, molecular	Period abroad: 6 months
5	NRRP - AGRITECH 2 - SPOKE 2	TOPIC: Improving management strategies for the control of main fungal diseases of citrus. REQUIRED SKILLS: fungal diseases characterization through morphological and molecular analyses; efficacy of fungicides and monitoring of the resistance, Biological Control Agents (BCAs), Systemic Acquired Resistance inducers (SAR) and biostimulants; RT-qPCR	Period abroad: 6 months
6	NRRP - AGRITECH 3 - SPOKE 3	TOPIC: Physiological, biochemical and productive aspects in orange trees related to the application of deficit irrigation techniques. REQUIRED SKILLS: Biology and ecophysiology of tree plants and, in particular, citrus plants, sustainable management of citrus groves aimed at the production of quality fruits	Period abroad: 6 months
7	NRRP - AGRITECH 4 - SPOKE 3	TOPIC: Evaluation of the Mediterranean agrobiodiversity resilient to water deficit. REQUIRED SKILLS: Conservation and exploitation of the Mediterranean agrobiodiversity, knowledge on horticultural crops and water deficit	Period abroad: 6 months
8	NRRP - AGRITECH 5 - SPOKE 5	TOPIC: Precision farming methods and tools to improve the efficiency and sustainability of production processes by monitoring and analysing data on agricultural activities. REQUIRED SKILLS: Agricultural mechanics and forestry mechanization, mainly on animal husbandry, forestry, green area biosystems, including information technology, sensor technology, automation, robotics and precision farming	Period abroad: 6 months
9	NRRP - AGRITECH 6 - SPOKE 5	TOPIC: Optimization of Constructed Wetland systems for livestock wastewater treatment and reuse. REQUIRED SKILLS: Agricultural sciences and environmental engineering applied on Nature-Based Solution for wastewater management	Period abroad: 6 months
10	NRRP - ONFOODS 1 - SPOKE 4	TOPIC: Bioactive compounds in animal feeding: effects on meat quality. REQUIRED SKILLS: Principles of animal nutrition and metabolism. Meat shelf life and lipid oxidation	Period abroad: 6 months
11	NRRP - ONFOODS 2 - SPOKE 1	TOPIC: Sustainability of food production, management models and blockchain on main Mediterranean foods. REQUIRED SKILLS: Economic, management aspects of the production, processing, distribution, market and consumption of primary sector products and agribusiness	Period abroad: 6 months
12	NRRP - ONFOODS 3 - SPOKE 1	TOPIC: Sensorial properties of novel model food systems. REQUIRED SKILLS: Skills in food distribution, shelf-life and evaluation of physical and sensory properties of ingredients/raw materials and processed products	Period abroad: 6 months
13	NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with B4GREEN Srl	TOPIC: Beneficial effects of microbial preparations on crop yield, quality and protection in the Mediterranean environment. REQUIRED SKILLS: cropping systems, agronomic practices, and quality aspects of the main Mediterranean crops	12 mesi presso B4GREEN Srl e 6 mesi estero
14	NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with the Consortium for research in the dairy and agro-food sector 1	TOPIC: Microbiology in dairy processing and ageing and the role of wooden tools. REQUIRED SKILLS: Microbiology characterization of lactic acid bacteria	Period abroad: 12 months; Period at Corfilac: 18 months
15	NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with the Consortium for research in the dairy and agro-food sector 2	TOPIC: Traditional and innovative technological parameters of the ageing processes: effects on the quality of dairy products. REQUIRED SKILLS: Principles of cheesemaking and cheese ageing	Period abroad: 6 months; Period at Corfilac: 18 months
16	NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with the Study Center of Economics Applied to Engineering	TOPIC: Nature based Solution (NBS) for water treatment and reuse in agriculture. REQUIRED SKILLS: Agricultural science and environmental engineering applied on nature based solutions for water and wastewater management	Period abroad: 6 months; Period at Csei: 6 months
17	NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with EKOSUPPLY Srl	TOPIC: Innovative and sustainable approaches for the management of stored food pests in organic industry and urban environments. REQUIRED SKILLS: Applied entomology, biological control and Pest Control in stored products	Period abroad: 6 months; Period at Ekosupply Srl: 6 months
18	NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with Seminarium Srl	TOPIC: Characterization and sustainable management of fungal diseases of tropical plants in nursery. REQUIRED SKILLS: Characterization of fungal diseases of plants through morphological and molecular analyses; biological and integrated plant protection	Period abroad: 6 months; Period at Seminarium Srl: 6 months

19	<i>NRRP - Ministerial Decree n. 117/2023 - Inv. 3.3 in collaboration with Florguarino Sas</i>	TOPIC: Innovative and sustainable cropping systems and extraction technologies to boost quantitative-qualitative production and valorization of Mediterranean aromatic and medicinal species. REQUIRED SKILLS: Agronomic and qualitative evaluation of Mediterranean aromatic and medicinal plants	Period abroad: 6 months; Period at Florguarino Sas: 6 months
20	<i>NRRP - Ministerial Decree n. 118/2023 - Inv. 4.1 Research NRRP</i>	TOPIC: Sustainable animal production in the Mediterranean area for quality products. REQUIRED SKILLS: Mediterranean animal production systems. Quality parameters of meats and dairy products	Period abroad: 6 months
21	<i>NRRP - Ministerial Decree n. 118/2023 - Inv. 4.1 Research NRRP</i>	TOPIC: Food-webs in Mediterranean agroecosystems. REQUIRED SKILLS: Applied Entomology, biological control, natural enemy biology and ecology	Period abroad: 6 months
22	<i>NRRP - Ministerial Decree n. 118/2023 - Inv. 4.1 Research NRRP</i>	TOPIC: Strategies and tools for the transition of agri-food enterprises to sustainable production models. REQUIRED SKILLS: Life Cycle Assessment (LCA) for sustainability evaluation of agri-food enterprises adopting circular resource management strategies.	Period abroad: 6 months
23	Agreement of International Cooperation for the Ph.D. course in Agricultural, Food and Environmental sciences between the University of Catania and the Federal University of Viçosa (13/05/2022). Scholarship funded by the Federal University of Viçosa	REQUIREMENT: Master degree from the Federal University of Viçosa (Minas Gerais, Brazil)	Period abroad: minimum 6 months
24	Agreement of International Cooperation for the Ph.D. course in Agricultural, Food and Environmental sciences between the University of Catania and the Federal University of Viçosa (13/05/2022). Scholarship funded by the Federal University of Viçosa	REQUIREMENT: Master degree from the Federal University of Viçosa (Minas Gerais, Brazil)	Period abroad: minimum 6 months
25	PLACE WITHOUT SCHOLARSHIP	TOPIC: Economic consumer models in agri-food systems. REQUIRED SKILLS: Economic, processing, distribution, agribusiness, market and consumption of primary agri-food product systems	Period abroad: 1 month
PLACES WITH SCHOLARSHIP, TOTAL: 24			
PLACES WITHOUT SCHOLARSHIP, TOTAL: 1			