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Rector's Decree

Call for supplementary public selection for admission to PhD courses - XXXIX cycle – Academic Year 2023/2024, with awarding PhD fellowships funded by the NextGenerationEU programme - National Recovery and Resilience Plan (PNRR).

The Rector

HAVING REGARD to the University Statute of Autonomy;

HAVING REGARD to the University General Regulations;

HAVING REGARD to the University Teaching Regulations;

HAVING REGARD to the University Administration and Accounting Regulations;

HAVING REGARD to the University PhD Regulations;

HAVING REGARD to the Law no° 476 of 13th August 1984;

HAVING REGARD to the Law no° 240 of 30th December 2010, in particular Art. 19;

HAVING REGARD to the Ministerial Decree no° 226 of 14 December 2021;

HAVING REGARD to the Law no° 104 of 5th February 1992, as supplemented and amended by the Law no° 17 of 28th January 1999;

HAVING REGARD to the Republic Presidential Decree no° 445 of 28th December 2000;

HAVING REGARD to the Law no° 148 of 11th July 2002;

HAVING REGARD to the Legislative Decree no° 196 of 30th June 2003;

HAVING REGARD to the Ministerial Decree no° 270 of 22nd October 2004;

HAVING REGARD to the General Data Protection Regulation (GDPR) - Regulation (EU) 2016/679 of the European Parliament and of the Council of 27th April 2016 relating to the protection of natural persons with regard to the processing of personal data and rules relating to the free movement of such data;

HAVING REGARD to the Ministerial Decree no° 247 of 23rd February 2022, which increased the gross annual amount of the PhD fellowship;

HAVING REGARD to the Rector's Decree no° 374 of 1st March 2022, which issued the "Fees, Contributions and Exemptions Regulations", updated for the academic year 2023/2024 by the University Board of Directors in date 28th February 2023;

HAVING REGARD to the provisions of the Italian Ministry of Universities and Research (MUR), concerning the Procedures for Entry, Residency and Enrolment of Foreign/International students in Higher Education Courses in Italy for the academic year 2023/2024, available at the link: <https://www.studiare-in-italia.it/studentistranieri/>;

HAVING REGARD to the Law no° 33 of 12th April 2022 relating to the Provisions concerning simultaneous enrolment in two courses of higher education;



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HAVING REGARD to the National Recovery and Resilience Plan (PNRR) document;

WHEREAS the PNRR is part of the Next Generation EU (NGEU) economic recovery project, developing around three strategic axes shared at European level - Digitisation and Innovation, Ecological Transition, Social Inclusion - and along six Missions, including Mission 4 "Education and Research";

ESTABLISHED that the Mission 4, Component 2 "From Research to Enterprise" intends to strengthen research and foster the dissemination of innovative models for basic and applied research conducted in synergy between universities and businesses; supporting innovation and technology transfer processes; enhancing research infrastructure, capital and innovation support skills;

ESTABLISHED that Component 2 of Mission 4 provided four types of investment, including:

- "Strengthening of the research structures for the creation of "National R&D Champions" on some "Key Enabling Technologies" (National Centres);
- "Creation and strengthening of "Innovation Ecosystems", building "territorial R&D leaders" (Innovation Ecosystems);
- "Partnerships extended to universities, research centres, companies to finance basic research projects" (Extended Partnerships);

HAVING REGARD to the Ministerial Decree no° 3138 of 16th December 2021 on the Public Notice for the Submission of Proposals for intervention for the Strengthening of research structures/facilities and the creation of "National R&D Champions" on some "Key Enabling Technologies" to be financed under the PNRR, Mission 4 Component 2 - Investment 1.4 - Strengthening research facilities and creation of "National R&D Champions" on some "Key Enabling Technologies" - funded by the European Union - NextGenerationEU (NC Notice);

WHEREAS the University participated in the NC Notice with the project "National Centre for HPC, Big Data and Quantum Computing" (Identification Code CN00000013), approved by the MUR with Concession Decree no° 1031 of 17th June 2022;

HAVING REGARD to the Ministerial Decree no° 3277 of 30th December 2021 on the Public Notice for the Submission of Proposals for action for the creation of 12 "Innovation Ecosystems" on the national territory to be financed under the PNRR, Mission 4 Component 2 - Investment 1.5 - Creation and strengthening of "Innovation Ecosystems", construction of "territorial R&D leaders" - funded by the European Union - NextGenerationEU (ECS Notice);

WHEREAS the University participated in the ECS Notice with the project "Technologies for climate change adaptation and quality of life improvement - Tech4You" (Identification Code ECS_00000009), approved by the MUR with Concession Decree no° 1049 of 23rd June 2022;

HAVING REGARD to the Ministerial Decree no° 341 of 15th March 2022 on the Public Notice for the Submission of Proposals for action for the creation of "Partnerships extended to universities, research centres, companies for the financing of basic research projects" - under the PNRR, Mission 4 "Education and Research" - Component 2 - Investment 1.3, funded by the European Union - NextGenerationEU (EP Notice);

WHEREAS the University participated in the EP Notice, among other things, with the project "Security and Rights in the Cyberspace - SERICS" (Identification Code PE00000014), approved by the MUR with Concession Decree no° 1556 of 11th October 2022 and with the project "Future Artificial Intelligence Research - FAIR"



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(Identification Code PE0000013), approved by the MUR with Concession Decree no° 1555 of 11th October 2022;

HAVING REGARD to the "Guidelines for reporting to the actors implementing the Mission 4 Component 2 system initiatives" and the " Guidelines for information and communication actions by the actuators";

HAVING REGARD to the CUP numbers generated by the University of Calabria for the aforementioned funding:

- H23C22000360005 (National Centre for HPC, Big Data and Quantum Computing);
- H23C22000370006 (Technologies for climate change adaptation and quality of life improvement - Tech4You);
- H23C22000860006 (Future Artificial Intelligence Research - FAIR);
- H73C22000880001 (SEcurity and Rights in the CyberSpace – SERICS);

WHEREAS the measures financed by the above decrees must be:

- coherent with the objectives and objectives of Regulation (EU) 2021/241, with the general strategy and the Detail Sheet of the PNRR Component;
- aimed at the achievement of the results measured in relation to the milestones and targets that may be assigned to the Investment within the terms set by the Plan;
- in accordance with the principle "not causing significant damage" (DNSH) pursuant to article 17 of Regulation (EU) 2020/852, in line with the technical guidelines prepared by the European Commission (Communication of the European Commission 2021/C58/01);
- to address and bridge gender inequalities;
- in support of the participation of women and young people, also in line with the provisions of Decree-Law no° 77 of 31st May 2021 (c.d. Simplification Decree), as amended by conversion Law no° 108 of 29th July 2021, concerning the management of the PNRR;

HAVING REGARD to the resolutions of the Board of Directors, held on 29th November 2022, 28th February 2023 and 30th May 2023, which authorised this call for proposals for the selection of doctoral fellowships also under the framework of the PNRR as indicated in the Annex A for each PhD course;

HAVING REGARD to the note of MUR prot. no° 3992 of 2nd March 2023 on "Computerized procedure for the accreditation of PhD Courses - XXXIX cycle. Opening note";

HAVING REGARD to the "Guidelines for the accreditation of research doctorates pursuant to article 4, paragraph 3, of the regulation referred to in Ministerial Decree 14th December 2021, no. 226 issued with Ministerial Decree no. 301 of 22nd March 2022;

HAVING REGARD to the decisions of the Departments of reference of the University's PhD courses, concerning the approval of the renewal of courses for the academic year 2023/2024 - XXXIX cycle;

HAVING REGARD to the resolutions of the Academic Senate and the Board of Directors, held on 23rd and 30th May 2023 respectively, on the renewal and activation of PhD courses for the XXXIX cycle;

HAVING REGARD its own Decree no. 862 of 15 June 2023, with which the "Public selection call for admission to the XXXIX cycle A.A. research doctorate courses was issued. 2023/2024, with assignment of doctoral scholarships financed by NextGenerationEU within the PNRR";



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HAVING REGARD to the letter of commitment from the Department of Physics for the financing of 1 additional scholarship for the doctorate course in Physical, Chemical and Materials Sciences and Technologies - XXXIX cycle;

HAVING REGARD its own Decree no. 1641 of 21 December 2023, with which the additional scholarship financed by the Department of Physics was assigned from funds referred to in the projects "ELIOTROPE - Materials and solutions for new concept photovoltaic panels", Training Project Code PON03PE_00092_2/F1 and of PNRR project "Integrated Infrastructure Initiative in Photonic and Quantum Sciences – I-PHOQS" doctoral course in Physical, Chemical and Materials Sciences and Technologies;

ASCERTAINED the financial available resources under the above projects PNRR for the coverage of the PhD fellowships referred to in this call;

ASCERTAINED the financial available resources of the Departments concerned for the financing of the additional PhD fellowships and the research amount, equal to at least 10% of the cost of the PhD fellowship, intended to finance research activities for PhD candidates;

CONSIDERING proper to provide for the issuing of the call for the selection notice for admission to PhD courses - XXXIX cycle – academic year 2023/2024 with administrative headquarters at the University of Calabria;

DECREES

Art. 1 Call for public selection for admission to PhD courses

1. The University of Calabria announces the call supplementary for public selection for admission to PhD courses for the academic year 2023/2024 - XXXIX cycle and the award of no. 9 PhD fellowships. The PhD fellowships of this call for proposals are funded by research projects also under the National Recovery and Resilience Plan (PNRR) of the programme by the European Union NextGenerationEU, as specified in Annex A "Analytical Cards Doctoral Courses XXXIX cycle – Academic Year 2023/2024" which is an integral and substantial part of this call.

2. This call will be published on the website of the Ministry of Universities and Research, on the European website Euraxess and on the portal of the University of Calabria at the link: https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_PhD-Research.html and has the value of full notification.

3. For each PhD course, the information related to the Coordinator, the duration, the proposing Department (any other Departments involved), the CUN Areas and the Disciplinary Scientific Areas of reference, the research topics or the curricula of the course, the requirements for participation, the procedures for admission, the titles to be attached to the application for participation, the criteria for evaluating the tests, the number of positions and PhD fellowships with details of the funders and the research objectives/themes, also in relation to the individual curricula, if any, the diary of the tests, the possible contact for information and the course website, are reported in Annex A.

4. Any changes, updates or additions to the content of this call will be announced, exclusively, with the publication on the portal of the University of Calabria at the link https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_doctorate-di-ricerca.html.

Any personal communications to candidates relating to this notice will be made by e-mail by the e-mail address dottorati@unical.it. For this purpose, the e-mail address indicated by the candidate in the online application shall be used. The University assumes no responsibility for the dispersion of communications



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dependent on inaccurate indications of personal contact details by the candidate or by failure or late communication of their change, nor by electronic errors.

5. The submission of the application for participation through the procedure referred to in art. 4 presupposes the candidate's knowledge of the rules contained in this call, in the University's Regulations on PhD and the Regulations on the source of funding under the National Recovery and Resilience Plan.

6. The start date of the PhD activities related to the PhD fellowships referred to in this call is set at 1st March 2024.

Art. 2 Admission Requirements

1. They can apply for participation in the selection of admission to the PhD courses referred to in the previous art. 1, without limitation as to age and/or nationality, persons who holds one of the following qualifications:

- a. Diploma of Degree (ex ante Ministerial Decree 509/1999);
- b. Master's Degree/Master's Degree (Ministerial Decree 509/1999 and Ministerial Decree 270/2004);
- c. Second level academic qualification issued by the institutions belonging to the AFAM sector;
- d. Degree obtained at foreign universities, legally recognized, provided that comparable duration, level and disciplinary field to the Italian qualification that allows access to the course.

Access to this call for selection of some of the PhD courses foresees the possession of specific master/specialist degrees (or equivalent), as indicated in the Annex A of this call.

2. Candidates who will achieve the title degree required in the paragraph 1 by the date of enrolment in the PhD course may also apply for participation in the admission notice. If the candidate is a PhD winner, he will be admitted "with reservation" and must submit, by the date of registration for the PhD course, by e-mail to dottorati@unical.it, the self-certification relating to the achievement of the title with attached copy of valid identity document. Failure to obtain the title within the indicated deadline will result in exclusion from the ranking list of merit.

3. Candidates who:

- previously have received a PhD fellowship or a fraction thereof;
- have already obtained a PhD.

may not apply for participation in this call.

Art. 3 Qualification obtained abroad

1. The suitability of the qualification obtained at foreign universities is ascertained, only for the purposes of admission to this selection, by the Selection Boards in compliance with the legislation in force in Italy and in the country where the qualification was issued, and treaties or international agreements on the recognition of qualifications for further studies.

2. In this case, applicants must submit, in the manner indicated in Article 4 below, the degree certificate, indicating the examinations taken and the study plan followed, both first and second level. The candidate can also attach the diploma supplement or the declaration of value on site or certificate of comparability issued by CIMEA or other ENIC-NARIC centers and any other documentation useful to assess the eligibility of the title held for the chosen PhD course. These documents, if they are not written in Italian or English, must be accompanied by a sworn translation in Italian or English. The Selection Boards will assess the eligibility of the foreign qualification on the basis of the documentation submitted and therefore may exclude the candidate even if there is insufficient evidence for the evaluation.



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3. Candidates holding a foreign qualification are admitted to the selection with reservation, which can be dissolved only when, if winners, will produce the diploma supplement or declaration of value on site or certificate of comparability CIMEA or other ENIC-centers NARIC, as provided by art. 8.

Art. 4 Application for Admission

1. The application for selection must be submitted using only the appropriate online procedure available on the page: <https://unical.esse3.cineca.it/>.
2. The electronic procedure for the submission of the application for online admission will be closed at 12:00 (noon Italian time) on 22th January 2024.
3. The telematic procedure provides for preliminary registration for those who are not in possession of a student matriculation of the University of Calabria, in order to obtain credentials allowing access to the next step of filling in the application for admission to selection.
4. Candidates who are already registered must access the Reserved Area using their existing credentials. Candidates are invited to update the data already present in the register, in particular the place of residence, the telephone number and the e-mail address, which will be delivered any communications related to the competition.
5. The application for admission to the selection is deemed to have been correctly submitted only after the completion of the electronic procedure and can no longer be modified online.
6. The date of submission of the application for admission to the selection shall be certified by the computerised system which, at the end of the deadline for submission, will no longer allow access to and submission of the application.
7. There is no payment of an admission fee.
8. The online admission procedure requires the upload of the following documents in pdf format:
 - self-certification (affidavit) of the right of access pursuant to art. 47 of Republic Presidential Decree 445/2000 (Annex B) exclusively for academic qualifications obtained in U.E countries;
 - documentation required for the evaluation of candidates with an academic qualification obtained abroad;
 - self-certification of exams taken during the academic career for candidates not yet in possession of the title qualification;
 - research project, of a maximum length of 16,000 characters (including spaces), unless otherwise required in the PhD course schedule to which the candidate intends to participate in, in compliance with the specifications set out in Annex A;
 - the candidate's curriculum vitae et studiorum;
 - a copy, front/back, of a valid identity document;
 - a copy of the Italian tax code, exclusively for Italian candidates;
 - any additional title qualification that are subject to evaluation, as specified in "Annex A" to this call.
9. All titles, documents and publications deemed useful for the purposes of the competition procedure must be attached in pdf format with a maximum size of 20 MB; exceptionally, any documentation that the candidate should not be able to attach can be sent by certified e-mail (PEC) to the address amministrazione@pec.unical.it or delivered by hand to the Protocol Office of the Central Administration, Via Pietro Bucci cubes 7-11 b, Arcavacata di Rende (CS), on weekdays from 10:00 to 12:00, always in compliance with the deadline of this notice. In addition, candidates who wish to supplement or amend the application or annexes may, in the same way, submit them, together with a signed application for admission and a photocopy of a valid identity document, within the mandatory deadline of expiry of the notice. If the annexes are not received by the deadline and in the manner indicated, only the documents entered by the computer



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procedure will be evaluated. The University assumes no responsibility for any telematic errors attributable to third parties.

10. Applicants who wish to participate in more than one selection procedure for admission to the doctoral courses referred to in this call for proposals must submit a different application for each selection, each accompanied by the required qualifications.

11. Applications for admission to selection made in a manner other than that described above will not be considered.

12. It is the responsibility of the candidate to ensure the correct conclusion of the computer procedure; in this regard, this University declines any responsibility for any malfunctions of the computer system close to the deadline.

13. Candidates with proven disability, pursuant to Law no° 104/1992 as supplemented by Law no° 17/1999, may request, in relation to their disability, the necessary aids and any additional time for completing the test. Applicants with specific learning disabilities in accordance with Law No. 170/2010 in relation to the type of test shall be granted an additional time of 30 per cent more than that defined. Candidates with disabilities, if they intend to use the aids provided by Law no° 104/1992 as supplemented by Law no° 17/1999, must also report it during the online application, indicating the type of aid required.

14. All candidates are admitted to the selection subject to verification of the requirements of the notice, which will be carried out pursuant to art. 43 of Republic Presidential Decree no° 445/2000. The University may, therefore, at any time order the exclusion of candidates from the selective procedure. The University, for its own institutional reasons, can also verify the veracity of the substitute declarations of certification submitted by the candidates: anyone who makes false statements is punished in accordance with the penal code and special laws on the subject.

15. The University reserves the right to adopt, even after the selection process, measures to exclude candidates who do not meet the requirements or who have not complied with the requirements of the call.

Art. 5 Selection boards

1. The Selection Boards for the admission to doctoral courses shall be appointed by the Rector in accordance with the "University Regulations on PhD" of the University of Calabria.

2. Each Selection Board shall be responsible for the entire selection procedure for applications, the preparation of the minutes, the formulation of the ranking lists and the award of PhD fellowships.

3. The composition of the individual Commissions will be published on the portal of the University of Calabria at the link https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_doctorate-di-ricerca.html.

Art. 6 Admission tests

1. Admission takes place in accordance with the modalities specified for each course in Annex A, an integral part of this decree.

2. The diary of the admissions tests, set out for each course in Annex A, shall constitute notification to the persons concerned. Any changes or additions to the exam schedule will be published exclusively on the portal of the University of Calabria at the web addresses indicated in Annex A for each course.

3. Failure to submit to the admission tests will be considered as a waiver of selection.

4. Candidates must show one of the following valid identification documents in order to take the competition tests: identity card, passport, car licence with photograph, firearms permit, identification card - with a photograph and a stamp or other equivalent signature - issued by a State Administration.



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5. The selective procedure, aimed at verifying the candidate's aptitude for scientific research, consists of an evaluation of the candidates' qualifications and an oral test.
6. In each doctorate sheet are indicated the points available for each individual test, the award criteria and the minimum thresholds for admission to subsequent tests.
7. Each Commission shall, prior to the securities valuation operations, designate the Chairman and the Secretary of the Minutes and set the criteria for the evaluation and scoring of each individual item (research project, curriculum vitae et studiorum, any certifications, any publications, etc.). In the case of candidates not yet in possession of a PhD qualification, the Commission will have to take into account the self-certified academic career at the time of the application in order to assess their educational background.
8. The oral test is public and includes the verification of knowledge of one or more foreign languages.
9. Applicants resident or domiciled abroad and all candidates who demonstrate, giving adequate reasons to the Selection Board, the impossibility to go in physical presence in the place and on the scheduled date for the oral test, to request the performance of the same electronically. In such cases, the candidate must make a request by sending a PEC (www.unical.it/pec) to the Department proposing the PhD course listed in the PhD card, as well as to the PhD program at as indicated in the individual doctoral cards. The application must be accompanied by a copy of a valid identification document. Applicants must ensure the use of a webcam to allow the Selection Board to identify themselves and must be available on the day and time set out in the test log in Annex A. It is up to each Commission to agree with applicants a precise time for the start of the interview. For the purposes of identification and otherwise excluded from the selective procedure, each candidate is required, before the interview begins, to identify themselves, presenting the same identity document already transmitted as an attachment to the e-mail and the online application. The lack of connection, the candidate's unavailability on the specified day or time or the failure to provide the submitted identification document constitute grounds for exclusion from the selective procedure. The University declines any responsibility for the possibility that technical reasons prevent the smooth conduct of the oral interview.
10. At the end of the evaluation, the Commission, on the basis of the score reported by each candidate, prepares the merit rankings. The Commission shall draw up a separate ranking list for the posts reserved for candidates with a qualification obtained abroad, to which only candidates who have expressly requested it in their application for admission to the selection procedure shall participate. In case of non-assignment, the reserved place will be made available as ordinary place and assigned according to the order of the general ranking of admission to the course.
11. The Commission shall then allocate the awards, taking into account the position in the ranking list, the number of awards, the subject of the research project submitted by the candidate and/or the suitability of the candidate to develop the research topic of the PhD fellowships submitted.
12. According to the national legislation in force, each candidate may not receive more than one PhD fellowship at the same time.
13. For the assignment of the posts referred to in this call, in case of equal score in the general ranking of merit, the assessment of the economic situation (ISEE of the candidate) prevails.
14. The documents relating to the competition procedure are sent to the Rector by the Selection Board.
15. Candidates shall be granted access to the documentation of the insolvency proceedings, in accordance with current legislation.



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Art. 7 Admission to doctoral courses

1. The Rector approves the acts of the selections and decrees the ranking lists for the admission of candidates.
2. The ranking lists will be published on the portal of the University of Calabria at the link https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html.
3. Candidates will therefore not receive any personal communication.
4. Candidates are admitted to the courses according to the rankings drawn up by each Selection Board until the places put in competition for each doctorate are exhausted. In the event of any waiver by those entitled before the start of the course, as many candidates will take over according to the order of the ranking drawn up by the Commission, always in compliance with the qualifications assigned. In the event of a useful placement in more than one ranking list, the candidate will have to exercise option for only one doctoral course.
5. This selection provides for the allocation only of places covered by PhD fellowship. Therefore, the renunciation of the PhD fellowship implies the renunciation of the doctoral course.

Art. 8 Registration procedures

1. The winners must register, through the procedure available at <https://unical.esse3.cineca.it/>, in the terms indicated at the same time as the publication of the Rector's Decree approving the acts of the selections. Failure to complete enrolment will result in forfeiture of the right to admission to the doctoral course.
2. The fee for attending doctoral courses, to be paid by all PhD students, includes the regional fee for the right to study, the stamp duty and the insurance premium pursuant to "Fees, contributions and exemptions regulations updated for the academic year 2023/2024", to which please refer.
3. The non-Community winners, after matriculation, must deliver to the PhD Sector of the Research, Innovation and Social Impact Area, within a reasonable period agreed with the Sector itself, a copy of the entry visa for study/university or residence permit.
4. Non-EU citizens applying for a visa must register on the University <https://www.university.it/index.php/dashboardportal>, under "International students", to apply for an entry visa. Registration is only completed upon the issue of the entry visa for study in Italy, the exclusive competence of the Italian Diplomatic Representations abroad, regardless of the suitability acquired.
5. Applicants with a foreign qualification admitted to the course, if they have not submitted it during the admission phase, must submit to the PhD Sector of the Research, Innovation and Social Impact Area, within a reasonable time agreed with the Sector itself, penalty blocking of the career and subsequent forfeiture, the declaration of value on the spot of the qualification, issued by the Italian Diplomatic Representation of the country to which the title refers. As an alternative to the declaration of value on the spot, it is possible to present the supplement diploma in English, issued by the same institution that issued the qualification, drawn up according to the model developed by the European Commission, by the Council of Europe and UNESCO/CEPES, or the certificate of comparability of CIMEA or ENIC-NARIC centres. If the "Declaration of Value" submitted by the candidate proves that the qualification is not valid in the country of achievement for enrolment in a course similar to the Doctorate, the interested person loses his or her doctoral course.
6. In the event of renunciation of those entitled, the remaining vacant positions will be assigned to those who hold a useful position in the merit ranking by means of a rectoral decree which will be made public on



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the University of Calabria portal at the link https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_doctorate-di-ricerca.html.

The candidates will also receive communication regarding the takeover by e-mail to the e-mail address indicated in the application for participation in the selection (from the institutional mailbox dottorati@unical.it) with an indication of the deadline for making the application. registration and acceptance of the scholarship and, if interested, must do so within the indicated deadlines, after which, the candidate will be considered to have tacitly renounced.

7. The University reserves the right to carry out appropriate checks on the veracity of the content of the winner's declarations. If the content of the statements is not true, the winner will forfeit the benefits resulting from the measure issued on the basis of the false statement.

Art. 9 PhD fellowships

1. The amount of the PhD fellowship is € 16,243.00 per year gross of the social security contributions paid by the PhD fellowship holder. The PhD fellowship is exempt from the payment of local tax on personal income and income (IRPEF) and is subject to the payment of INPS social security contributions under separate management, two thirds to be borne by the University and one third by the PhD fellowship holder. The PhD students enjoy the protection and related rights. The PhD fellowship holders will have to enroll in the separate management INPS.

2. The limit of total gross annual personal income to be eligible for the PhD fellowship is € 15,000.00. The determination of such income shall include income of property origin and emoluments of any other nature, including those of an occasional nature. The income refers to the tax period for the calendar year of the greatest use of the PhD fellowship (for the academic year 2023/2024 the year 2024). Exceeding the income limit in one of the academic years in which the PhD fellowship is used leads to the loss of the right to PhD fellowship for the year in which the income event incompatible with the grant occurred. In this case there will be an obligation to return any monthly payments already received during the academic year.

3. PhD fellowship is paid in installments on a deferred monthly basis, has an annual duration and is renewed annually for the duration of the course, provided that the doctoral student has completed the activities foreseen in the previous year and has been admitted by the Teaching Board to the next year.

4. PhD fellowship may not be cumulated with research grants or other PhD fellowships for any title conferred, except with those awarded by national or foreign institutions useful for supplementing training or research activities with stays abroad.

5. The amount of the PhD fellowship is increased by 50 percent for periods of stay abroad at universities or research institutes previously authorized by the Teaching Board and supported by a certificate of the Host Institution, not less than 30 consecutive days and a total of not more than 12 months, extendable up to 18 months for doctorates in co-protection with foreign universities and for those activated in associated form pursuant to article 3, paragraph 2 of Ministerial Decree. no° 226/2021. The PhD student is required to certify the effective stay abroad, otherwise they will be refunded. The surcharge may not be applied for stays spent in the country of origin or the country of residence of doctoral candidates.

Art. 10 Rights and duties of PhD students

1. Without prejudice to the rights and obligations provided for by the current University Regulations on Doctorates and the Ministerial Decree no° 226/2021, the acceptance of the PhD fellowships financed by the PNRR implies the fulfilment of the obligations laid down in the relevant Ministerial Decrees.



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2. Admission to the doctorate involves an exclusive and full-time commitment. Doctoral candidates are obliged to attend the doctoral courses with assiduity, to carry out all the study and research activities in the structures intended for this purpose and in accordance with the procedures established by the Teaching Board, to submit to the Faculty Board, at the end of each course year, an oral or written report on the activity and research carried out and to comply with anything else established by the College itself.
3. Each PhD student is guaranteed a budget for research activities in Italy and abroad of not less than 10% of the cost of the Ministerial PhD fellowship.
4. All other PhD students who have won this selection must carry out a compulsory period of study and research at public or private subjects abroad of at least ninety (90) days in the three-year period, previously authorized by the Faculty Committee.
5. The PhD students are required to read the University Regulations on Research Doctorates of the University of Calabria and to periodically consult the web portal, in particular the page <https://www.unical.it/didattica/didattica/offerta-formativa/dottorati/>.

Art. 11 Final examination and qualification

The title of Doctor of Research ("Dr. Ric. or Ph.D.") is awarded by the Rector of the University of Calabria at the end of the course following public discussion, before a Commission appointed by the Rector himself, a research thesis that contributes to the advancement of knowledge or methodologies in the chosen field of research, as provided for by the University Regulations on PhD.

Art. 12 Properties of results

1. Intellectual property rights on the possible results achieved by the PhD student, including, but not limited to, software, industrial inventions that can be patented or not, know-how, models, data and data collections, are regulated in accordance with current legislation, the University Regulations and according to what is established in the individual agreements with the University, Companies or Bodies involved.
2. The PhD student has the obligation to communicate without delay to the Coordinator the achievement of the results, committing himself not to disclose them and not to use them without the prior authorization of the University. In the event that the PhD student cooperates in research groups, he or she may be invited to sign a specific commitment to the recognition of intellectual property rights and confidentiality in relation to information, data and documents of a confidential nature that you should become aware of in carrying out your activities at and/or on behalf of the University.

Art. 13 Processing of personal data

1. Pursuant to the art. 13 of the General Data Protection Regulation (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016), applicants are informed that the processing of personal data provided by them when participating in the selection or otherwise acquired for this purpose by the University of Calabria is aimed solely at the performance of the competitive activities and will be carried out by the persons responsible for insolvency proceedings, also by the Selection Board, at the University of Calabria, with the use of procedures including computerised, in the ways and within the limits necessary to pursue the aforementioned purposes, even in case of possible communication to third parties. The provision of such data is necessary to verify the requirements for participation and the possession of securities and their non-disclosure may preclude such verification.
2. The data collected by the University of Calabria, for the aforementioned purposes, will be processed through an automated database even after the conclusion of the selective procedure for the purposes related



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to the academic career management of the winners. They can also be used, in aggregate form and for statistical purposes, also by the MUR. The personal data provided by the candidates will be communicated to the administrative structures of the University of Calabria and to the Public Bodies directly interested in the legal and economic position of the winning candidates.

3. Candidates are granted the rights referred to in Arts. 15 and ss. of the aforementioned Regulation 2016/679, in particular, the right to access their personal data, to ask for their rectification, cancellation, limitation of processing, as well as to oppose their processing, by sending requests to the University of Calabria.

Data subjects who believe that the processing of personal data referred to them occurs in violation of the provisions of the Regulation have the right to lodge a complaint with the Guarantor for the protection of personal data, as provided by art. 77 of the same Regulation, or to appeal to the appropriate courts (art. 79 of the Regulation).

4. All documentation and information regarding the protection of personal data of the University of Calabria are available at the following link: <https://www.unical.it/privacy/>.

5. The data controller is the University of Calabria, via Pietro Bucci, 87036 Arcavacata di Rende (CS), tel. (+39) 0984 4911.

6. The contact details of the Data Protection Officer (RDP) are: via Pietro Bucci, Cube 7/11, 87036 Arcavacata di Rende (CS), tel. (+39) 0984 493918; email: rpd@unical.it.

Art. 14 Responsible for the proceedings

According to the Law of August 7, 1990, n. 241, the person responsible for the procedure of this call for proposals is the Head of the Research, Innovation and Social Impact - University of Calabria (e-mail: dottorati@unical.it).

Art. 15 Final rules

1. As far as not explicitly specified in this selection notice, the provisions provided for by current legislation on the subject, the University Regulations on PhD Programmes, the PNRR, as well as the relevant ministerial decrees of implementation, apply.

2. This call for proposals is translated into English, but in case of disputes the legal text will be in Italian.

The Rector
Nicola Leone

Within this notice the terms relating to persons appear only in the masculine. They refer indiscriminately to women and men. Formulations respectful of gender identity have been renounced in order not to compromise the readability of the text and satisfy the need for its simplicity.

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ANNEX A
Analytical Tables PhD Courses
Cycle 39th - Academic Year 2023/2024

Synthesis Available Positions				
No°	PhD Course	Coordinator	Available positions	Pages
1	Information and Communication Technologies	Prof. Giancarlo Fortino	4 (four) positions with PhD fellowship granted by projects financed by the PNRR	14-16
2	Life Science and Technology	Prof. Tommaso Angelone	1 (one) position with PhD fellowship granted by project financed by the PNRR	17-19
3	Science and Engineering of the Environment, Construction and Energy	Prof. Salvatore Critelli	3 (three) positions with PhD fellowship granted by projects financed by the PNRR	20-21
4	Physical, Chemical and Materials Sciences and Technologies	Prof.ssa Gabriella Cipparrone	1 (one) positions with PhD fellowship granted by Physics Department	22-23



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PhD Course in “Information and Communication Technologies”

Coordinator	Prof. Giancarlo Fortino – Department of Computer Science, Modeling, Electronics and Systems Engineering - DIMES – Via Pietro Bucci, Arcavacata di Rende (CS) – Phone: +390984.494063 – E-mail: g.fortino@unical.it
Duration	3 years
Main Department	Department of Computer Science, Modeling, Electronics and Systems Engineering – DIMES
Subject Areas	Electronics, Electromagnetic Fields, Telecommunications, Automatic Control, Computer Science, Computer Engineering, Electrical and Electronic Measurements, Principles of Chemical Engineering, Numerical Analysis, Operations Research, Sciences of the book and document, Electrical engineering, Private law.
Research Topics	<p>The curriculum is multidisciplinary and strongly oriented to the integration and development of new systems of Information and Communication Technology (ICT). The main research topics are listed below:</p> <ul style="list-style-type: none"> • Design of Internet of Things (IoT) systems. • Cybersecurity. • Big Data analysis techniques and applications. • Artificial intelligence. • Wearable computing and m-health systems. • Modeling and simulation for reliability analysis of IoT systems. • Software engineering methodologies for the development of complex distributed software systems. • Models and algorithms for social networks. • Management and analysis systems of Big Data and scalable processing: distributed systems, parallel systems, cloud computing architectures and systems, provisioning models. • Knowledge Management: document management, knowledge extraction, integration and modeling, formalization methodologies, taxonomy classification, thesauri and ontologies, distributed data management, data mining and data warehousing. • Simulation and optimization: models and algorithms. • Mathematics for machine learning. • Microsystems: design, development and characterization of intelligent MEMS devices. • Development of low power and high performance circuits and systems for 3D image processing. • Photovoltaic conversion: models and technologies for solar cells and intelligent systems for energy management, conversion and storage. • High performance, energy efficient integrated circuits for logic and memory applications. • Nanodevices for logic and memory applications. • Modeling and design of spintronic nanodevices.



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	<ul style="list-style-type: none"> • Systems and techniques for the management of infrastructures for electric mobility. • Reconfigurable antennas. • Smart antennas and their integration. • Advanced techniques for the measurement of electromagnetic fields. • Electromagnetic diagnostics and biomedical applications. • Radar systems for the environmental monitoring. • Electronic circuits for RF applications. • Monolithic integration of transmitters and receivers. • Efficient energy management in wireless sensor networks. • Cognitive networks and 5G systems. • Network technologies, protocols and architectures for IoT systems. • Vehicle networks and new generation protocols for smart cities. • Control and estimation for agent-based interconnected network systems. • Control strategies resilient to cyber-attacks in network control systems. • Secure navigation schemas and environment reconstruction for autonomous robot teams. • Techniques and devices for navigation, guidance and control in autonomous submarine vehicles. • Techniques and devices for submarine acoustic communications and localization. • Non-destructive evaluation of materials. • Electronic measurement systems. • Fault detection and isolation and control reconfiguration techniques in dynamical systems. • Synchronization methods for IoT-based distributed measurement systems. • IoT-based distributed measurement systems for structural monitoring. • Food engineering. • Legal Informatics 	
Requirements of Participation	<ul style="list-style-type: none"> - Italian university Master's Degree (Laurea ante DM 509/ 1999, Laurea Specialistica/Magistrale ex DM 509/1999 and DM 270/2004). - Equivalent Degree awarded by an accredited foreign university. 	
Application Procedures	<p>Qualification assessment and oral examination. The knowledge of the english language will be assessed during the oral examination.</p>	
Assessable qualification (mandatory documents to be enclosed)	<ul style="list-style-type: none"> - Research project; - Curriculum vitae, including a copy of Bachelor's and Master's Degree (in Italian or English), and the list of examinations taken with grades and final mark. 	
Assessment criteria	Total maximum score 60	
	Qualification assessment	Maximum score 30
	Research project	Maximum score 10
	Curriculum vitae	Maximum score 20



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	<p align="center">Oral examination</p> <p>Discussion on the proposed research project and on the disciplines of interest for the doctorate. Foreign candidates can take the exam via skype.</p>		<p>Maximum score 30 punti</p>	
	<p>Minimum score required for the admission to the oral admission and for the oral examination: 21 pt</p>			
Positions and PhD fellowships	<p>4 (four) positions with PhD fellowship granted by projects financed by the PNRR:</p> <ul style="list-style-type: none"> - n. 1 position project CN-HPC, topic: “Models, Techniques and Algorithms for the support of multidimensional big data analytis on massive graph data”; - n. 1 position project SERICS, topic: “Models, Techniques and algorithms for the support of privacy-preserving management of digital entity in cloud computing environments”; - n. 1 position project Tech4You, topic: “Advanced Logistic Solutions in the Food Industry: the Influence of Digital Transformations on Process Optimization and Food Traceability”; - n. 1 position project Fair, topic: “Generative AI for Green and Smart IoT Applications”. 			
Agenda	Description	Date	Time	Room
	Qualification assessment	January, 29 2024		
	Oral examination	January, 30 2024	09:30 am CEST	Seminar room of DIMES, University of Calabria, Arcavacata di Rende, Italy
	<p>The results of the exam will be posted on the PhD website: http://dottorato.dimes.unical.it/</p>			
Information	g.fortino@unical.it			
PhD website	http://dottorato.dimes.unical.it/			



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Phd Course in “Life Science and Techonology”

Coordinator	Prof. Tommaso Angelone - Dipartimento di Biologia, Ecologia e Scienze della Terra (DiBEST) - Via Pietro Bucci - Cubo 6/C, 87036 Arcavacata di Rende (CS) Tel.: +39 0984.492902 - e-mail: tommaso.angelone@unical.it - SSD: BIO/09
Duration	3 anni
Main Department	Prof. Tommaso Angelone, Dipartimento di Biologia, Ecologia e Scienze della Terra (DiBEST), Via Pietro Bucci, Cubo 6/C, Tel.: +39 0984/492902, e-mail: tommaso.angelone@unical.it - SSD: BIO/09.
Subject Areas	3 anni
Research Topics	<p>This multidisciplinary Doctorate is focused on the following research topics.</p> <p>Experimental cardiology. Cell physiology. Signal transduction mechanisms. Biochemical and biomolecular aspects of membrane transport systems. Application of membrane transport systems to human health and drug design. Analysis of genetic and epigenetic variability in relation to human aging and forensic issues; biology, genetics and epigenetics of microorganisms and their relationship with the host. Action of hormones and mechanisms molecules involved in physiological and pathological fields. Activated transduction pathways by hormones and growth factors in tumor progression. Analyses bioinformatics of multi-omics data through digital platforms for research applied in degenerative and tumor diseases. Biodiversity. Conservation and wildlife risk. Developmental biology. Neurobiology. Morfofunctional cell alteration in eucariothes. Adaptive biology in aquaculture. Behavioural ecology. Morpho-functional organ adaptations in the presence of environmental, physical and chemical stress. New molecular mechanisms in hormone-sensitive tumors progression. Cyto-physiology of apical meristems. Influence of secondary metabolites on cell function and structure. Environmental stress and parasites. Identification and characterization of genes involved in key metabolic processes. Comparative study of the mitochondrial genome and gene expression in plants. Epigenetic mechanisms and developmental processes in plants. Biosystematics of plants. Flora and vegetation of Calabria. Biodiversity and conservation of plant resources. Bio-indicators of the quality of inland waters. Cytophysiological and molecular analysis of marine phanerogams; ecological analysis and functioning of coastal marine ecosystems. New synthetic compounds and nutraceutical with pharmaceutical interest. Profiling, proteomics, lipidomics, and metabolomics of vegetable and animal matrices by MALDI-MS and MS/MS, and high-resolution NMR. Self-assembly of biocompatible multifunctional molecular nanoarchitectures for drug delivery and tissue repairing. Use of arthropods in the evaluation of environmental quality and in forensic investigations, parasitosis in humans and animals caused by some species of insects.</p> <p>Study of fossil organic matter, especially lipid biomarkers, in biogenic carbonates to characterize the evolution of their biocenosis in the history of life. Food and pharmacological processes. Characterization of soft and multiphase systems for food and pharmaceutical uses. Renewable energy. Efficiency of energy production processes. Technology of air monitoring. Development of systems for management and control</p>



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	<p>water quality. Innovative systems for the optimization of the waste hierarchy and preventing the creation of waste. Development and characterization of new additives for asphalt industry to protect the health of workers and the environment. characterization and study of biomimetic membranes by physical chemical techniques.</p>
Participation Requirements	<p>Italian Master's Degree (DM 270/04): LM-6 Biologia; LM-7 Biotecnologie Agrarie; LM-8 Biotecnologie Industriali; LM-9 Biotecnologie Mediche, Veterinarie e Farmaceutiche; LM-11 Scienze per la conservazione dei beni culturali; LM-13 Farmacia e farmacia industriale; LM-17 Fisica, LM-18 Informatica, LM-21 Ingegneria Biomedica; LM-22 Ingegneria Chimica; LM-23 Ingegneria civile, LM-30 Ingegneria energetica e nucleare, LM-31 Ingegneria gestionale, LM-32 Ingegneria Informatica; LM-33 Ingegneria Meccanica; LM-35 Ingegneria per l'Ambiente ed il Territorio; LM-40 Matematica; LM-41 Medicina e Chirurgia; LM-42 Medicina Veterinaria; LM-44 Modellistica matematico-fisica per l'ingegneria, LM-53 Scienza e ingegneria dei materiali, LM-54 Scienze Chimiche; LM-60 Scienze della Natura; LM-61 Scienze della Nutrizione; LM-69 Scienze e tecnologie agrarie; LM-70 Scienze e tecnologie alimentari; LM-74 Scienze e tecnologie geologiche, LM-75 Scienze e tecnologie per l'ambiente ed il territorio; LM-79 Scienze geofisiche; LM-82 Scienze statistiche; LM-86 Scienze zootecniche e tecnologie animali.</p> <p>- Italian Specialist Degree (ex DM 509/99): 3/S (specialistiche in architettura del paesaggio); 6/S (specialistiche in biologia); 7/S (specialistiche in biotecnologie agrarie); 8/S (specialistiche in biotecnologie industriali), 9/S (specialistiche in biotecnologie mediche, veterinarie e farmaceutiche); 12/S (specialistiche in conservazione e restauro del patrimonio storico-artistico), 14/S (specialistiche in farmacia e farmacia industriale), 20/S (specialistiche in fisica), 23/S (specialistiche in informatica), 26/S (specialistiche in ingegneria biomedica), 27/S (specialistiche in ingegneria chimica), 28/S (specialistiche in ingegneria civile), 33/S (specialistiche in ingegneria energetica e nucleare), 34/S (specialistiche in ingegneria gestionale), 36/S (specialistiche in ingegneria meccanica), 38/S (specialistiche in ingegneria per l'ambiente e il territorio), 45/S (specialistiche in matematica), 46/S (specialistiche in medicina e chirurgia), 47/S (specialistiche in medicina veterinaria), 50/S (specialistiche in modellistica matematico-fisica per l'ingegneria), 61/S (specialistiche in scienza e ingegneria dei materiali), 62/S (specialistiche in scienze chimiche), 68/S (specialistiche in scienze della natura), 69/S (specialistiche in scienze della nutrizione umana), 74/S (specialistiche in scienze e gestione delle risorse rurali e forestali), 77/S (specialistiche in scienze e tecnologie agrarie), 78/S (specialistiche in scienze e tecnologie agroalimentari), 81/S (specialistiche in scienze e tecnologie della chimica industriale), 82/S (specialistiche in scienze e tecnologie per l'ambiente e il territorio), 85/S (specialistiche in scienze geofisiche), 86/S (specialistiche in scienze geologiche), 92/S (specialistiche in statistica per la ricerca sperimentale)</p> <p>-Italian Degree (ante DM 509/99) or equivalent to Master degree above listed. -Academic degrees obtained abroad equivalent to Master degree above listed.</p>
Admission Procedures	<p>Evaluation of qualifications and oral examination. The knowledge of the English Language will be assessed during the oral examination.</p>
Assessable qualification	<p>- Research Project - Curriculum Vitae et Studiorum (CV)</p>



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	- Any other qualifications (publications, participation in conferences).			
Assessment criteria	TOTAL SCORE 60/60			
	Evaluation of qualifications		Total score 30/30	
	Research Project Note: for the project use only the scheme present at the following link:		Total Score: 20	
	CV		Total Score: 5	
	Other qualifications: Publications, Participation at scientific meetings		Total Score: 5	
	<p style="text-align: center;">Oral Examination</p> <p>The oral examination will focus on the discussion of research project, curriculum vitae and other qualifications. Candidate's skills will be evaluated to verify its abilities to carry out the proposed project. For foreign candidates there will be the possibility to be examined by using a skype connection</p>		Total Score: 30	
Minimum Score required for the admission to the oral examination: 21 point.				
Positions and PhD fellowships	1 (one) positions with PhD fellowship on topic: " Bioinformatics analysis of multi-omics data for cancer research through digital platforms and solutions " (Subject Area: Pathology).			
Agenda	Description	When	Time	Where
	Evaluation qualification	February 7, 2024		
	Oral Examination	February 9, 2024	09:00 am CEST	Aula 5C3, Ponte Pietro Bucci – Cubo 5C Piano Carrabile -DiBEST – Università della Calabria Arcavacata di Rende (CS)
The results of the tests will be published at the web address: https://www2.unical.it/portale/strutture/dipartimenti_240/dibest/ricerca/dottorati/lifescience/newseventi/				
Information	Coordinator: Prof. Tommaso Angelone, Dipartimento di Biologia, Ecologia e Scienze della Terra (DiBEST), Tel.: +39 0984/492902, e-mail: tommaso.angelone@unical.it			
Phd website	https://www.unical.it/portale/strutture/dipartimenti_240/dibest/ricerca/dottorati/lifescience/			



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PhD Course in “Science and Engineering of the Environment, Construction and Energy”

Coordinator	Prof. Salvatore Critelli - Department of Environmental Engineering (DiAM) – Via Pietro Bucci – Cubo 45A - Tel.: 0984/496760 – E-mail: salvatore.critelli@unical.it – SSD: GEO/02	
Duration	3 years	
Proposer Department	Department of Environmental Engineering - DIAM	
Other Department Involved	Dipartimento di Ingegneria Meccanica, Energetica e Gestionale (DIMEG) Dipartimento di Biologia, Ecologia e Scienze della Terra (DiBEST) Dipartimento di Fisica Dipartimento di Ingegneria Civile (DInCi) Dipartimento di Chimica e Tecnologie Chimiche (CTC) Dipartimento di Culture, Educazione e Società (DiCES)	
Scientific sectors	MAT/07, CHIM/06, CHIM/07, FIS/01, FIS/07, FIS/08, GEO/01, GEO/02, GEO/04, GEO/06, GEO/07, GEO/08, GEO/09, GEO/10, ICAR/01, ICAR/02, ICAR/08, ICAR/09, ICAR/20, ING-IND/22, ING-IND/27, ING-IND/33, L-ANT/09.	
Research topics	<p>The PhD program aims at developing skills in basic and applied sciences of Geology, physics, chemistry and mathematics, from civil and environmental engineering to the industrial and information one, from complex systems to scientific communication.</p> <p>In particular, main topics are:</p> <ul style="list-style-type: none"> • modelling and simulation of complex systems, • measuring equipment and sensors for natural hazards, • resources and natural hazards, soil conservation and pollution, • evolution of geological processes and geology of natural resources, • territory, architecture, and buildings, • energy, innovative materials and industrial change. 	
Application Requirements	Master Degree (before the DM 509/1999) or Master Degree (ex DM 509/1999 and DM 270/2004); - Equivalent qualification, obtained from a foreign, legally recognized university.	
Evaluation procedure	Assessment of academic publications and titles, oral examination. During the oral exam, foreign language proficiency will be tested.	
Evaluable academic publication and titles	- Curriculum vitae et studiorum (CV); - Research project which consists of a minimum of three pages to a maximum of 6 pages, containing a brief state of the art, the description of the research objectives to be pursued during the PhD course, the main contributions and / or innovations of the research. - Scientific and technical reports, publications.	
Evaluation Criteria	Maximum score of 60 points	
	Assessment of the applicants publications and titles	Maximum score 30 points
	Research Project	Maximum score 20 points



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	CV	Maximum score 5 points		
	Scientific and technical reports, publications	Maximum score 5 points		
	Oral examination. Selection criteria: The oral examination will focus on the content of the candidate's project. The committee will also evaluate the candidate's skills for the realization of the project and the candidate's rationale for doctoral research. The candidate must also demonstrate to have a high level of expertise in a foreign language.	Maximum score 30 points		
	The minimum threshold for being admitted to the oral examination and positive oral examination is of 21 points			
Positions and PhD fellowships	3 (three) positions with PhD fellowship granted on PNRR Tech4You project on the following goals: <ul style="list-style-type: none"> - "Nowcasting hydrometeorological systems"; - "Integration of ground-based and remote sensing data for drought and fire risk early warning"; - "Earth observation from space for early warning of potentially destructive events". 			
Agenda	Test	Date	Time	Room
	Assessment of documents and publications	February 2, 2024		
	Oral examination	February 8, 2024	09:00 a.m.	Building 45A - Seminar room of the Department of Environmental Engineering (DIAM) University of Calabria (CS)
The test results will be posted on the website https://diam.unical.it/didattica/formazione-post-laurea/dottorato-di-ricerca-siace/				
Contacts for information	salvatore.critelli@unical.it ; tel.: +39 0984.496760; marinella.tedeschi@unical.it ; tel.: +39 0984.496650.			
PhD website	https://diam.unical.it/didattica/formazione-post-laurea/dottorato-di-ricerca-siace/			



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PhD Course in “Physical, Chemical and Material Sciences and Technologies”

Coordinator	Prof.ssa Gabriella CIPPARRONE - Dipartimento di Fisica - Via Pietro Bucci - Cubo 33/B, Arcavacata di Rende (CS) Tel.: +39 0984.496115 - E-mail: gabriella.cipparrone@fis.unical.it - SSD: FIS/03.	
Duration	3 years	
Main Department	Department of Physics	
Subject Areas	FIS/01, FIS/02, FIS/03, FIS/05, FIS/06, FIS/07, CHIM/01, CHIM/02, CHIM/03, ICAR/08	
Research Topics	<p>The doctorate course includes two curricula with the following topics.</p> <p>1) "Physical sciences and technologies". The activities of this area mainly concern the following research topics: astrophysics and plasmas, geophysics, condensed matter physics and quantum physics, physics of complex systems, and of the continuous, physics of biological systems, high energy physics, in their experimental, theoretical and computational aspects.</p> <p>2) "Advanced materials: chemistry and technologies". The activities of this area mainly concern the following research topics: science and technology of advanced materials and systems (membranes, interfaces, etc), polymeric, composite, multifunctional, hybrid and nanostructured, etc. Conceiving the study of materials in terms of structure and properties, design, production processes, characterization and use, with the aim of developing materials and methods for the conversion and accumulation of energy, technologies for cultural heritage protection , photonics, sensors, health, anti-counterfeiting and security.</p>	
Participation Requirements	Italian University Degree (ante DM 509/1999) or Italian/Master's Degree (ante DM 509/1999 and DM 270/2004) or equivalent Degree obtained abroad.	
Procedures for the admission	Evaluation of Qualifications and oral examination. The knowledge of English.	
Assessable qualification	<ul style="list-style-type: none"> - Curriculum vitae with details of any previous research experience; - Master Degree with the details of mark, duration and exams; - Research project; - List of published scientific articles (eventual). 	
Assessment criteria	Maximum score 60 points	
	Qualification	
	Research project	Maximum score 30 points
	CV and any previous research experience	
	Eventual published articles	
Oral examination	Maximum score 30 points	
English presentation of the candidate research project and		



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	eventual discussion on papers published by the candidate.	
	Minimum score to reach the position: 21 pt	
Positions and PhD fellowship	1 (one) positions with PhD fellowship granted by Physics Department on funds of the projects "ELIOTROPE - Materials and solutions for new concept photovoltaic panels", Training Project Code PON03PE_00092_2/F1 and of PNRR project "Integrated Infrastructure Initiative in Photonic and Quantum Sciences – I-PHOQS on the topic: <i>“Implementation of the procedures and protocols for phase contrast imaging on biomedical and softmatter samples”</i> .	
Agenda	Description	Date
	Qualification assessment	February 5, 2024
	Oral examination	February 8, 2024
	Time	Room
	09:00 am CEST	Seminars Hall of Physics Department of University of Calabria – Arcavacata di Rende (CS).
	The test results will be published on the PhD website at : https://fisica.unical.it/contents/news/list	
Information	Dott.ssa Chiara Perri 0984/494006 - E-mail: chiara.perri@fis.unical.it	
PhD Website	https://fisica.unical.it/didattica/formazione-post-laurea/dottorato-di-ricerca/	



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ANNEX B
Self-Declaration Affidavit
(art. 46 D.P.R.28 December 2000 n. 445)

*The undersigned _____ Fiscal Code: _____
 _____ Place of birth _____ Date of
 birth _____ Sex M/F _____ Residence (city) _____ prov.
 _____ via _____ n. _____ cap _____

I understand that any incorrect information and false statements are subject to the penalties provided, according to art. 76 of the D.P.R. 28 December 2000, n. 445, pursuant to and for the purposes of D.P.R. n. 445/2000, and on its own responsibility: Hereby declare To be in possession of the following access title pursuant to art. 2 of the selection notice: *(Please indicate precisely: exact name of the course, date of graduation and grade, University, list of exams with marks if required and for candidates not yet in possession of the qualification)*

Degree _____ achieved
 on _____ with vote _____ at

List of exams and grades (possible)

A copy of the following identity document is attached: _____

The undersigned also declares to be informed, pursuant to and for the purposes of Legislative Decree no° 196 of 2003 and Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 that the personal data collected will be processed, also by computer, exclusively in the context of the procedure for which this declaration is made.

*This statement may relate to states, personal qualities or facts that are directly acquainted with the person concerned, as well as states, personal qualities and facts relating to other subjects of which he or she has direct knowledge. This statement must provide proof of any qualifications (eg qualifications, examinations, professional qualifications, etc.) that are not attached to the application, as self-certification. For the titles attached (eg documents issued by a public authority, copies of publications, copies of parchments or certificates of study or service qualifications, etc.) must in the same declaration state declare that they are in conformity to the original copy. Lastly, a copy of a validation document must be dated, signed and attached.

N.B. - Subscribing to the aforementioned statements is not subject to authentication where it is assigned in the presence of the employee. If this declaration is sent or filed directly by a person other than the candidate, Photostatic copy, front and rear, of a document of the identity of the subscriber must also be produced. Only photographic identity documents issued by a state administration will be considered valid.

Place and date, _____

Declared by (Legible signature)
