



UNIVERSITÀ DELLA CALABRIA

Rector's Decree

Public call for evidence selection for admission to doctoral programmes - XXXVII cycle - A. A. 2021/2022

THE RECTOR

HAVING REGARD to the Statute of Autonomy of the University of Calabria;

HAVING REGARD to the General Regulations of the University;

HAVING REGARD to the Teaching Regulations of the University;

HAVING REGARD to the Regulations for Administration and Accounting;

HAVING REGARD to the University Regulations on the PhD Programme of the University of Calabria;

HAVING REGARD to D.R. n. 89 of 26 January 2017 concerning the issue of the additional certification of "Doctor Europæus" ("European Doctorate");

HAVING REGARD to Law No. 240 of 30 December 2010, in particular Art. 19;

HAVING REGARD to the Ministerial Decree n° 45 of 8 February 2013 "Regulation procedures for accrediting universities and PhD courses and the criteria for implementing Doctorate courses by credited institutions";

HAVING REGARD TO Law No. 104 of 5 February 1992 as supplemented and amended by Law No. 17 of 28 January 1999 laying down rules on "Assistance, Social Integration and Rights of Persons with Disabilities";

HAVING REGARD TO the Decree of the President of the Republic n. 445, 28 December 2000 "Consolidated text of laws and regulations concerning administrative documentation";

HAVING REGARD TO Law No. 148 of 11 July 2002 "Ratification and implementation of the Convention on the Recognition of Qualifications in Higher Education in the European Region, done at Lisbon on 11 April 1997, and rules for the adaptation of the national legal system" and in particular, art. 2, which empowers universities to recognise the entry qualification for obtaining a Ph.D.;

HAVING REGARD TO D. Lgs. n. 196 of 30 June 2003 "Code regarding the protection of personal data";

HAVING REGARD TO Ministerial Decree no. 270 of 22 October 2004 "Amendments to the Regulations concerning the teaching autonomy of universities, approved by Decree of the Ministry of University and Scientific and Technological Research no. 509 of 3 November 1999";

HAVING REGARD TO Legislative Decree no. 167 of 14 September 2011 concerning the "Single text of the apprenticeship, pursuant to Article 1, paragraph 30, of Law no. 247 of 24 December 2007";

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

HAVING REGARD TO the Ministerial Decree n° 40 of 25 January 2018 with which has been established the annual amount of the grant to attend Ph.D. courses;

CONSIDERING the note of the Ministry of Education Prot. n. 3315 of the 1st of February 2019 concerning the "New lines for the accreditation of doctoral courses";

HAVING REGARD TO the INPS notice, published on 15 July 2020, aimed at the accreditation and agreement of research doctorates for the academic year 2020/2021 for the academic year 2020/2021 in the field of: Industry 4.0, Statistical and actuarial sciences, Sustainable development, INPS and welfare and well-being,



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for the provision and financing of additional doctoral scholarships for children and orphans of retired users of the Public Employee Management or members of the Unitary Management of Credit and Social Benefits;

HAVING REGARD TO the MUR note concerning the Procedures for the entry, stay and registration of foreign/international students in higher education courses in Italy for the academic year 2021/2022;

SEEN the note of the MUR Prot. n. 7403 of 16 March 2021 on "Operational indications on accreditation procedures for doctorates academic year 2021/2022 - XXXVII cycle";

HAVING REGARD TO the deliberations of the Departments of reference of the University's Doctoral Research Courses, concerning the approval of the accreditation of courses for the A.A. 2021/2022 - XXXVII cycle;

HAVING REGARD TO the resolutions of the Board of Directors of 26 March, 20 April and 25 May 2021 and of the Academic Senate of 23 March 2021;

HAVING REGARD TO the opinion delivered by the Evaluation Team on 19 April 2021 concerning the accreditation of research doctorates A.A. 2021/2022 - XXXVII cycle - administrative seat of the University of Calabria;

HAVING REGARD TO the results of the examination of the ANVUR of the proposals for activation of the doctoral courses for the XXXVII cycle;

HAVING REGARD TO the Rector's Decree no. 514 of 29 March 2021 with which the "Regulations for fees, contributions and exemptions 2021/2022" were issued;

HAVING REGARD TO the Rectory Measures relating to the containment and management of the epidemiological emergency by COVID-19;

HAVING REGARD TO Rector's Decree No. 883 of 22 June 2021 concerning the additional financing of a doctoral grant by the CNR and IPM S.r.l.;

HAVING REGARD TO the agreements with Italian and foreign external bodies;

ASSESSED the availability on the relevant item of the single budget of University of annual forecast authorizing 2021;

HAVING ESTABLISHED the financial availability within the relevant economic budgets of the Departments concerned for the financing of the additional grants and the sum, equal to at least 10% of the cost of the doctoral grant, intended to finance research activities for its PhD students;

DEEMED necessary to issue the call for applications for admission to the PhD courses - XXXVII cycle - A.A. 2021/2022 with administrative headquarters at the University of Calabria;

HAVING REGARD TO the opinion of technical and administrative regularity of the Postgraduate Research Department PhD Director, correct initials of this provision;

DECREES

Art. 1 Indiction

1. It is announced at the University of Calabria the call for selection in public evidence for admission to the PhD courses in Annex A "Analytical Sheets PhD Courses XXXVII cycle - A. A. 2021/2022" which forms an integral and substantial part of this notice.

2. This call will be published on the website of the Ministry of University and Research, on the European site Euraxess and on the portal of the University of Calabria at the following links:



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<https://www.unical.it/portale/ateneo/amministrazione/aree/apl/dottorato/> e
https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html
is equivalent to a notification to all intents and purposes.

3. For each doctoral course in Annex A the Coordinator, the duration, the proposing Department and any other departments involved, the Disciplinary Scientific Areas of reference, the research topics or the curricula of the course are specified, the conditions for participation, the conditions for admission, the qualifications to be attached to the application for participation, the criteria for evaluating the tests, the number of study places and scholarships, specifying the funding entities and the research objectives/themes, including in relation to the individual curricula, if any, information on the test diary, the possible address for information and the website of the course.
4. Additional posts and scholarships may be made available before the evaluation is carried out and until the evaluation is concluded, without prejudice to the deadline for the submission of applications by candidates for the selection procedure, provided for by the following art. 5.
5. Any posts awarded as an "industrial doctorate" are reserved for the employees of enterprises engaged in highly qualified activities. In the individual course, files will be indicated any places. Applicants must be in possession of the degree required for access to the doctorate and must pass the selection for admission to the doctorate. The places will be assigned according to the order of the specific ranking. The methods of carrying out the research activity and the distribution of the employee's total commitment are regulated by the conventions aimed at activating these paths.
6. The activation of scholarship posts financed by external bodies and the University Departments, any industrial doctorates and apprenticeships in higher education is subject to the completion of agreements/agreements by the date of the start of the courses.
7. Any changes, updates or additions to the content of the notice will be disclosed, exclusively, with the publication on the portal of the University of Calabria at the following links:
<https://www.unical.it/portale/ateneo/amministrazione/aree/apl/dottorato/> and
https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html.
Any personal communications to candidates relating to this notice will be made by e-mail. For this purpose, the e-mail address indicated by the candidate in the online application shall be used. The University does not assume any responsibility for the dispersion of communications dependent on inaccurate indications of personal contact details of the candidate or failure or late communication of their change, nor by telematics' problems.
8. The submission of the application for participation through the procedure referred to in art. 5 presupposes the candidates' knowledge of the rules contained in this notice and in the University Regulations in the field of PhD research and failure to comply with which results in exclusion from the selection.
9. The beginning of the doctoral courses of the XXXVII cycle is previewed for the 1° November 2021.

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 nationality, persons with one of the following educational qualifications:
 - a. Bachelor's degree old ordering (ex ante D.M. 509/1999);
 - b. Master's Degree/Degree (D.M. 509/1999 and D.M. 270/2004);



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c. Degree obtained at foreign universities, legally recognized, declared equivalent or suitable for access to the doctorate in Italy.

For access to the selection of some of the Doctoral Courses, it is necessary to hold specific Master's/ Specialist (or equivalent) degrees, as indicated in Annex A to this call.

2. May also apply for participation in the notice of admission those who will achieve the title required by paragraph 1, by 31 October 2021. Candidates are required to communicate the achievement of the qualification, sending notice to the address dottorati@unical.it. Failure to achieve the title within the deadline will result in exclusion from the ranking of merit.

3. Applications will not be accepted for candidates who are already enrolled in doctoral courses at the University of Calabria.

Art. 3 Degree released by foreign universities

1. Candidates with the qualification obtained abroad must attach to the application for online participation the relative declaration of value on the site.

2. In the absence of such a declaration, the candidates will be admitted to the selection with reservation and will be able to obtain recognition of the qualification, for the sole purpose of admission to the Doctorate, by the Admissions Committees, which will assess the suitability of the title for the sole purpose of enrolment in the doctorate in accordance with the relevant legislation in force in Italy and in the country where the title was issued and the international treaties or agreements on the recognition of qualifications for the continuation of studies.

3. To this end, candidates must attach, to the application, the qualifications obtained, accompanied by translation into Italian or English, also by and under the responsibility of the candidate. In case the course of studies followed by the candidates includes a first and a second university degree (Bachelor + Master Degree), must be attached to the documentation of both titles, with the list of examinations and the duration of course/s.

4. The Admissions Committees will proceed with the assessment of the foreign qualification on the basis of the documentation attached to the application for admission to the competition and therefore may exclude the candidate even if the submitted documentation does not provide sufficient evidence to the evaluation.

Art. 4 Places reserved for candidates with an academic qualification obtained abroad, for foreign grant holders or for specific international mobility programmes or for company employees.

1. Interested candidates must make an explicit request to participate in the allocation of reserved seats, selecting the appropriate item indicated in the electronic application.

2. The candidates referred to in the previous paragraph are admitted to the doctorate after evaluation of the titles submitted and, unless otherwise provided in the form relating to the chosen course referred to in art. 1, with the passing of an interview, in video conference.

3. The Admissions Committees shall draw up appropriate minutes and lists the relevant grades. Any posts reserved for candidates with a foreign academic qualification not awarded may be made available for non-confidential selection.

Art. 5 Application for admission

1. The application for admission to the selection must be submitted, no later than **12:00 (Italian time) on 6 August 2021**, using exclusively the online procedure available on the page: <https://unical.esse3.cineca.it/>.



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2. The telematic procedure provides for the preliminary registration for those who are not in possession of a student matricule of the University of Calabria, in order to obtain the credentials that allow access to the next phase of filling in the application.
3. The application is considered to be submitted correctly only upon completion of the electronic procedure and can no longer be changed online.
4. The date of submission of the application shall be certified by the computerised system which, at the end of the deadline for submission, will no longer allow access to and dispatch of the application.
5. No admission fee will be paid.
6. The online admission procedure provides for the upload of the following documents in pdf format:
 - self-certification of access certificate pursuant to Art. 47 D.P.R. 445/2000 (Annex B);
 - declaration for the option of PhD position in order to contribute to the assignment of places with a fixed-topic grant financed by University Departments and/or External Bodies (Annex C); the declaration of the candidate will be a priority and binding choice. Candidates who do not exercise this option will compete exclusively for scholarship positions financed by the University (indicating where required the topic);
 - research project, with a maximum length of 16,000 characters, unless otherwise specified in the doctoral course schedule, the topics related to the disciplinary scientific fields of interest in the course and the specific research topics indicated in the posts with specific themes for which the candidate intends to compete;
 - the candidate's curriculum vitae et studiorum;
 - a copy, front/back, of a valid identity document;
 - a copy of the Italian tax code;
 - documentation required for the evaluation of candidates with an academic qualification obtained abroad;
 - self-certification examinations taken during the academic career for candidates not yet in possession of the qualification;
 - any additional qualification under assessment, as specified in "Annex A" to this notice.
7. All titles, documents and publications deemed useful for the purposes of the competition procedure must be attached in electronic format. pdf with a maximum size of 20 MB; exceptionally, any documentation that the candidate does not succeed in attaching can be sent by certified e-mail (PEC) to the 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 the annexes may submit the application together with the signed application for admission and a photocopy of a valid identity document in the same manner, within the mandatory deadline for expiry of the notice. In the event that the annexes are not received by the deadline and in the manner indicated, will be evaluated only the documents entered with the computerized procedure. The University assumes no responsibility for any telematic problems attributable to third parties.
8. Candidates wishing to participate in more than one admission selection must apply for each selection, each accompanied by the required qualifications.
9. Applications submitted in a manner other than that set out above will not be considered.
10. It is the candidate's responsibility to ensure the correct conclusion of the IT procedure; in this regard, this University declines all responsibility for any malfunctions of the computer system close to the deadline.



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11. Any Rector Decrees of exclusion from the selection will be made public on the portal of the University of Calabria at the following links:

<https://www.unical.it/portale/ateneo/amministrazione/aree/apl/dottorato/> and
https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html

before the first competition test. No personal communications will be sent. Applicants who are not admitted may request, by submitting a written application to the Rector, the reasons for exclusion. No explanations will be given to requests received in different ways.

12. Candidates with proven disabilities, pursuant to Law No. 104/1992 as supplemented by Law 17/99, may request, in relation to their disability, the necessary aids and any additional time for the completion of the test. Candidates suffering from specific learning disorders in accordance with Law No. 170/2010 in relation to the type of test are granted an additional time equal to 30 percent more than the one defined. Disabled applicants, if they intend to use the aids provided by Law n. 104/1992 as integrated by Law 17/99, will also have to report during the completion of the online application, indicating the type of aid required.

13. 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 D.P.R. 445/2000. The University may, therefore, at any time order the exclusion of candidates from the selective procedure. The University will also, of its own motion, 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.

14. The University reserves the right to take, even after the selection, measures to exclude candidates who do not meet the requirements or who have not complied with the requirements of the notice.

Art. 6 Admissions Committees

The Admissions Committees of the selection for admission to doctoral courses are appointed by the Rector in compliance with the "University Regulations in the field of PhD" of the University of Calabria. The composition of the individual committees will be published on the portal of the University of Calabria at the following links:

<https://www.unical.it/portale/ateneo/amministrazione/aree/apl/dottorato/> and
https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html.

Art. 7 Admission tests

1. Admission is carried out in accordance with the procedures specified for each course in Annex A, an integral part of this decree.

2. The admission test log book for each course in Annex A shall be notified in full 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 following links:
<https://www.unical.it/portale/ateneo/amministrazione/aree/apl/dottorato/> and
https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html.

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

4. To support the tests, applicants must present one of the following identity documents: identity card, driver's license, passport or other identity document provided they have an identification photo.

5. The selective procedure, aimed at ascertaining the candidate's aptitude for scientific research, consists of an evaluation of the candidates' qualifications, supplemented, in accordance with the provisions of each course in Annex A, by a written and/or oral test.



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- 6.** In the schedule of each doctorate are indicated the points available for each individual test, the award criteria, the minimum thresholds for admission to the following test.
- 7.** The Commission, prior to the evaluation of qualifications, will have to establish the evaluation and scoring criteria for each individual item (research project, curriculum vitae et studiorum, any certifications, any publications, etc.). In the case of candidates who are not yet in possession of a research doctorate qualification, the Commission will have to consider the self-certified academic career at the time of the application for an appropriate assessment of their training.
- 8.** The written test, if any, should be carried out by all candidates, normally in Italian, without prejudice to the possibility for the Commission to decide on the conduct of the subject, for all candidates, in a foreign language.
- 9.** The oral exam is public and includes the verification of the knowledge of one or more foreign languages.
- 10.** Applicants permanently resident abroad can take the "oral test at a distance" using the videoconference tool (e.g.: skype). In this case, they must request it, within the same deadline of the notice, by e-mail to the address dottorati@unical.it, attaching a copy of an identity document and indicating the course to which you intend to participate electronically. Applicants must ensure the use of a webcam to allow their identification with the Admissions Committees and must be available on the day and time set out in the test log in Annex A. It is up to the Commission to agree with the candidates on a precise timetable for the start of the interview. For the purpose of identification and under penalty of exclusion from the selective procedure, each candidate is required, before the interview begins, to identify himself, showing the same identity document already transmitted as an annex to the e-mail and the online application. Failure to make the connection, the unavailability of the candidate on the date or time set or the failure to present the transmitted identification document shall 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.
- 11.** If the state of health emergency from COVID-19 were to continue, the admission tests could take place electronically, on the day and time indicated in Annex A. On the website of each doctoral course will be made available information for the telematic connection and the conduct of the selections. No personal communications will be sent to candidates. Therefore, it remains their responsibility to consult the websites of the courses listed in Annex A of the notice also near the scheduled dates. Candidates shall be provided with adequate video equipment to enable the Admissions Committees to identify and display during the test. To access the tests, candidates must present the same identification document attached to the online application.
The absence or lack of connection of the candidates on the day or at the time set for the tests, or the failure to show the identification document already sent in the annex to the application is considered a waiver of participation in the selection. The University assumes no responsibility in case of technical problems that prevent the correct performance of the oral test.
- 12.** At the end of the evaluation, the Commission, based on the scores reported by each candidate, prepares the ranking of merit.
- 13.** Subsequently, the Commission, considering the ranking of merit, the number of scholarships in competition, the theme of the research project and the eligibility for the options on the subject expressed by candidates (declared in Annex C to this notice), assigns all places to the competition based on:
 1. the ranking position;
 2. subject to the assessment of suitability expressed by the Admissions Committees as to the



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appropriateness of the research project.

The Commission gives priority to the posts financed by University Departments and External Bodies; it will then proceed with the allocation of the posts financed by the University and the eligibility of candidates usefully placed in the ranking of merit.

If a candidate is eligible for more than one thematic grant, the Commission will decide on the award.

Under existing national legislation, each candidate may not benefit from more than one doctoral grant at the same time.

For each candidate eligible for the competition procedure, the Commission must indicate the eligibility for the various types of posts, always respecting the options exercised by the candidate in Annex C.

14. If there are different admission procedures for candidates with degrees obtained abroad in the schedule of a doctoral course referred to in Annex A, the Commission shall draw up separate rankings. If, on the other hand, the same admission procedures are provided for the above-mentioned candidates, the reserved post will be assigned to the candidates who meet the requirements based on the order of the general ranking of merit. In any case, only candidates who have expressed requested it in the application for admission to the selection procedure may apply for these posts. In case of non-assignment, the post will be made available as an ordinary post and assigned according to the order of the general ranking of admission to the course.

15. For the assignment of the places with scholarship, in case of equal score in the overall ranking of merit, the assessment of the economic situation prevails.

16. The President of the Admissions Committees transmits the documents relating to the competition procedure to the Rector.

17. Candidates are granted access to the documentation of the competition procedure, in accordance with current legislation.

Art. 8 Admission to doctoral courses

1. The Rector approves the acts of the selections and decrees the ranking of merit for the admission of candidates.

2. The ranking of merit will be made known by publication on the portal of the University of Calabria to the following link: <https://www.unical.it/portale/ateneo/amministrazione/aree/apl/dottorato/> and https://unical.portaleamministrazionetrasparente.it/pagina874_tc-7_dottorati-di-ricerca.html.

3. Candidates will therefore not receive any personal communication.

4. Candidates shall be admitted to the courses in accordance with the ranking list drawn up by the Admissions Committees until all the candidates have competed for each doctorate. In correspondence of any waivers of the right holders before the beginning of the course will succeed as many candidates according to the order of the ranking drawn up by the committee, always in compliance with research issues. In case of useful placement in more than one ranking, the candidate will have to exercise the option for a single doctoral course.

5. Candidates who have participated in the reserved posts are admitted to the doctoral course within the limits of the posts reserved for them for each doctorate.

Art. 9 Enrollment to PhD Courses

1. The winners must register using the procedure available at <https://unical.esse3.cineca.it/> within the terms indicated at the same time as the publication of the Rector's Decree approving the acts of the



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selections. Failure to complete registration will result in forfeiture of the right to admission to the doctoral course.

2. The amount of fees for the attendance of doctoral courses, charged to all doctoral students, is inclusive of the regional fee for the right to study, stamp duty and insurance premium pursuant to the "Regulations fees, contributions and exemptions 2021/2022" to which reference is made.

3. Candidates who have obtained their diploma abroad must deliver a copy of the residence permit and the qualifications translated, legalized and equipped with "Declaration of value on site" issued by the competent Italian diplomatic missions in the country in which the titles are obtained. For qualifications obtained in a European Union country, as an alternative to the Declaration of Value, the Diploma Supplement may be presented in original or in certified copy (in English) issued by the university that issued it. If the "Declaration of Value" submitted by the candidate attests the non-validity of the title in the country of achievement for registration for a course similar to the Doctorate, the person concerned will be disqualified from the Doctoral Course.

4. It is forbidden to enrol simultaneously in another course of study that issues an academic title, even from another Italian or foreign university, except for medical specialization courses according to current legislation.

5. In the event of the resignation of the persons entitled, the vacant posts are assigned to those who hold a useful position in the ranking of merit, with convocation by e-mail.

6. The University reserves the right to carry out appropriate checks on the veracity of the content of the declarations of the winner. If the content of the statements is not true, the winner shall forfeit the consequential benefits from the order issued based on the untrue statement.

Art. 10 Scholarships

1. The amount of the doctoral grant is € 15,343.28 per year gross of the social security costs borne by the scholarship holder. The PhD grant is exempt from payment of local personal income tax (IRPEF) and is subject to payment of separately managed INPS social security contributions, two-thirds to be borne by the University and one-third by the grant holder. The PhD students enjoy the protection and related rights. Scholarship holders will have to register for the separate management of INPS.

2. The total annual gross personal income limit to be eligible for the PhD scholarship is €15,000.00. The determination of this income shall be based on income derived from assets and on emoluments of any other kind, including occasional payments. Income refers to the tax period for the academic year of the high use of the scholarship (for the academic year 2021/2022 the year 2022). Exceeding the income limit, in one of the academic years in which the grant was awarded, results in the loss of the right to the grant 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. Doctoral grants may not be combined with research grants or other scholarships in any capacity awarded except those awarded by national or foreign institutions which are useful for supplementing training or research activities with stays abroad.

3. The amount of the PhD grant is increased by 50%, for a total period not exceeding 18 months, if the PhD student is authorized by the Faculty to carry out research activities abroad after the invitation of the foreign institution. The PhD student is required to apply for an original certificate from the foreign institution where the study stay takes place indicating the exact period of stay, under penalty of returning what received.



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4. As a result of the University's participation in competitive call, public notices issued by external bodies, the number of places and scholarships put out to tender may be increased. The award of any scholarships will be made on the basis of the rules contained in the notices and, where applicable, in the specification of implementation, after admission to funding, using, in the absence of different indications, the general ranking list of the competitions for admission to the XXXVII cycle of the Phd courses referred to in this call.
5. Those who have received a scholarship for a doctoral course, even in part, are not eligible for a second scholarship.

Art. 11 Rights and obligations of PhD students

1. Admission to the doctorate involves an exclusive and full-time commitment. Students enrolled in Phd courses have the obligation of attending and carrying out all the study and research activities within the framework of the structure of affection in the manner provided by the Board of Professors, to which, at the end of each year of course, they must submit a report on their research activities.
2. Suspension from the course is allowed for duly documented periods, relating to the following cases: maternity and sickness. Once the cause of absence has ceased, the PhD student will have to recover the months of suspension of study and research activities.
3. The PhD students, as an integral part of the training project, may carry out, subject to approval by the Faculty and without this involving any increase in the scholarship, tutoring activities of the students of the degree courses and Master's degree, and in any case within the maximum limit of forty hours in each academic year, additional teaching activity.
4. Starting from the second year, each PhD student is guaranteed a budget for research in Italy and abroad of no less than 10% of the cost of the Ministerial grant.
5. Doctoral candidates will have to carry out a compulsory period of study and research at public or private subjects abroad of **at least 3 months in the three-year period**.
6. The PhD students are required to periodically check the section of the portal of the University of Calabria dedicated to the doctorate.

Art. 12 Final examination and qualification

1. 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 the 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 investigation, as required by the University Regulations in the field of Phd.
2. In accordance with the provisions of the Rector's Decree no. 89/2017 mentioned in the foreword, if the requirements established by the EUA are met, the PhD student who requests it, will be awarded the additional certification of Doctor Europæus.

Art. 13 Property of results and confidentiality

1. Intellectual property rights in respect of possible results achieved by the PhD student, including, but not limited to, software, patentable or otherwise industrial inventions, 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 Universities, Companies or Entities involved.
2. The PhD student has the obligation to communicate without delay to the Coordinator the achievement of the results, committing himself not to divulge them and not to use them without the prior



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authorization of the University. In the event that the PhD student cooperates in research groups, he may be invited to sign a special commitment to the recognition of intellectual property rights and confidentiality in relation to information, data and documents of a confidential nature which should come to your knowledge in the performance of your activity at and/or on behalf of the University.

Art. 14 Processing of personal data

1. In accordance to art. 13, of the General Data Protection Regulation (Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016), inform candidates that the processing of personal data provided by them during participation in the selection or in any case acquired for this purpose by the University of Calabria is aimed solely at the performance of the competition activities and will be carried out by persons in charge of insolvency proceedings, also by the examining board, at the University of Calabria, with the use of procedures also computerized, in the ways and to the extent 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 participation requirements and the possession of securities and their failure to indicate them may preclude such verification.

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 selection procedure for the purposes of managing the academic career of the winners. They may also be used, in aggregate form and for statistical purposes, by the MUR.

2. 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 successful candidates.

3. Candidates shall be granted the rights referred to in Articles. 15 and ff. of the aforementioned Regulation 2016/679, in particular, the right to access their personal data, to request its rectification, cancellation, restriction of processing, as well as to oppose their processing, by addressing requests to the University of Calabria.

Data subjects who consider that the processing of personal data relating to them takes place 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 for by art. 77 of the Regulation itself, or to refer to the appropriate courts (art. 79 of the Regulation).

4. All documentation and information related to the protection of personal data of the University of Calabria are available at the following link: <http://www.unical.it/portale/ateneo/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, Cubo 7/11, 87036 Arcavacata DI Rende (CS), email: rpd@unical.it.

Art. 15 Officer in charge of the administrative procedure

In accordance to Law no. 241 of 7 August 1990, the officer in charge of the administrative procedure is the Head of the Phd Research Department of the Post graduate Area - University of Calabria (e-mail: dottorati@unical.it).



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Art. 16 Final regulations

1. For what is not explicitly specified in this notice, the provisions of the current legislation on the subject and the University of Calabria University Regulations in the field of PhD research of the University of Calabria apply.
2. This selection notice is translated into English but in case of disputes the reference legal text will be the one in Italian.

THE RECTOR
Nicola Leone



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Analytical Tables
PhD Courses
Cycle 37th - Academic Year 2021/2022

Synthesis Positions Available				
No°	PhD Course	Coordinator	Available positions	Pages
1	PhD Programme in Humanities	Prof. Raffaele Perrelli	6	14-16
2	Information and Communication Technologies	Prof. Giancarlo Fortino	7	17-19
3	Civil and Industrial Engineering	Prof. Enrico Conte	6	20-21
4	Life Science and Technology	Prof. Tommaso Angelone	6	22-24
5	Mathematics and Computer Sciences	Prof. Gianluigi Greco	5	25-27
6	Translational Medicine	Prof.ssa Stefania Catalano	8	28-29
7	Politics, Culture and Development	Prof. Alberto Ventura	5	30-32
8	Economic and Business Sciences	Prof. Fabio Giovanni Lamantia	6	33-34
9	Science and Engineering of the Environment, Construction and Energy	Prof. Salvatore Critelli	9	35-36
10	Physical, Chemical and Materials Sciences and Technologies	Prof.ssa Gabriella Cipparrone	6	37-38



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PHD PROGRAMME IN HUMANITIES.

Coordinator	Prof. Raffaele Perrelli – Department of Humanities – Via Pietro Bucci, Cubo 28/B – 87036 Arcavacata di Rende (CS) - e-mail: raffaele.perrelli@unical.it - SSD: L-FIL-LET/04	
Duration	3 Years	
Main Department	Department of Humanities	
Subject Areas	L-ANT/02, L-ANT/04, L-ANT/06, L-ART/01, L-ART/04, L-ART/05, L-ART/07, L-FIL-LET/02, L-FIL-LET/04, L-FIL-LET/06, L-FIL-LET/07, L-FIL-LET/09, L-FIL-LET/10, L-FIL-LET/11, L-FIL-LET/12, L-FIL-LET/14, L-FIL-LET/15, L-LIN/02, L-LIN/04, L-LIN/06, L-LIN/07, L-LIN/10, L-LIN/11, L-LIN/12, L-LIN/13, L-LIN/14, L-LIN/17, M-FIL/01, M-FIL/03, M-FIL/04, M-FIL/05, M-FIL/06, M-FIL/08, M-PSI/07, M-GGR/01, M-PED/01, M-STO/01, M-STO/02, M-STO/04, M-STO/06, SPS/02, SPS/08, SPS/13.	
Research Topics	The PhD programme intends to mould scholars both in the more traditional and the newer subjects of humanities (from classical and modern literature to philosophy, from philology to history of arts, from history to branches of communication and performing arts), comparing and contaminating the practices of philology with the historical and philosophical dimensions.	
Participation Requirements	Italian University Degree (<i>ante</i> DM 509/1999) or Italian Specialist/ Master's Degree (<i>ex</i> DM 509/1999 and DM 270/2004) or equivalent Degree obtained abroad.	
Admission Procedures	Evaluation of Qualifications and oral examination.	
Mandatory documents to be enclosed	<ul style="list-style-type: none">- Curriculum Vitae et Studiorum (CV) analytical training and research activity that shows the title of the degree and master's degree thesis or equivalent, the attendance to any postgraduate courses, scholarships obtained and previous research experiences in Italy and/or abroad;- Research project of no more than 12.000 characters, spaces included, bibliography excluded. For the purposes of the selection for the PhD, the candidate must present a project that can evaluate the propensity to research and his ability to independently plan and organize the different phases of the project;- Publications with ISSN/ISBN code (eventual).	
Assessment Criteria	Total Score 60/60	
	Evaluation of Qualifications	<i>Total maximum Score 30/30</i>
	<i>Curriculum Vitae et Studiorum</i> (CV) analytical training and research activity	Total score: 3
	Research project evaluated according to the following criteria: <ul style="list-style-type: none">- domain of the linguistic code of scientific research;- expressive property;- originality of the research and scientific objectives of the theoretical and methodological instrumentation of	Total score: 25



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	reference, - congruence with the disciplinary areas in a broad sense represented in the teaching staff; - consistency of the project itself with the duration of the training course.			
	Publications with ISSN/ISBN code	Total score: 2		
	Oral Examination	<i>Total maximum Score 30/30</i>		
	Procedure: - remote discussion, on the Microsoft TEAMS platform (https://teams.microsoft.com/l/meetup-join/19%3a122458922c74478684c7ae4d0882c1ef%40thread.tacv2/1624011466967?context=%7b%22Tid%22%3a%227519d0cd-2106-47d9-adcb-320023abff57%22%2c%22Oid%22%3a%22b894df63-da7e-4c64-81ca-a4b795baf687%22%7d) for both candidates and the Commission, on: - the research project; - the main topics of the Doctorate; - knowledge of a foreign language chosen from: French, English, Spanish, German.			
	Minimum Score required for the admission to the next tests and for passing the oral examination: score 21/30.			
Positions and scholarships	6 (six) positions granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad.			
Agenda	Description	When	Time	Where
	Evaluation of Qualifications (applicant presence not required)	September 24, 2021		https://www.unical.it/portale/strutture/dipartimenti_240/dsu/
	Oral Examination	September 28, 2021	10:00 am CEST	The oral examination will take place electronically through the Microsoft TEAMS platform which can be accessed through the following link: https://teams.microsoft.com/l/meetup-join/19%3a122458922c74478684c7ae4d0882c1ef%40thread.tacv2/1624011466967?context=%7b%22Tid%22%3a%227519d0cd-2106-47d9-adcb-320023abff57%22%2c%22Oid%22%3a%22b894df63-



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				da7e-4c64-81ca-a4b795baf687%22%7d The methods of access will be made public on the Department of Humanities website together with the outcome of the evaluation of the qualifications.
	The results will be published on the Department of Humanities website at: https://www.unical.it/portale/strutture/dipartimenti_240/dsu/			
Information	dipartimento.studiumanistici@unical.it			
Phd website	https://www.unical.it/portale/strutture/dipartimenti_240/dsu/dottrato/			



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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, 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.• Systems and techniques for the management of infrastructures for electric mobility.• Reconfigurable antennas.



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	<ul style="list-style-type: none"> • 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 	
Partecipazione requirements	<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. 	
Admission procedures	<p>Qualification assessment and oral examination. The knowledge of the english language will be assessed during the oral examination.</p>	
Assessable qualification	<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
	Oral examination Discussion on the proposed research project and on the disciplines of interest for the	Maximum score 30 punti



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	doctorate. Foreign candidates can take the exam via skype.			
	Minimum score required for the admission to the oral admission and for the oral examination: 21 pt			
Positions and scholarships	7 (seven) positions with scholarship of which: - 5 granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad; - 2 granted by DIMES as part of the "Departments of Excellence" project on the topic " <i>Design of Internet of Things Systems</i> ".			
Agenda	Description	Date	Time	Room
	Qualification assessment (presence of candidates not requested)	September, 27 2021	9.00 am CEST	
	Oral examination	September, 27 2021	9.00 am CEST	Seminar room of DIMES – University of Calabria – Arcavacata di Rende (Cosenza) Italy
	The results of the exam will be posted on the PhD website: http://dottorato.dimes.unical.it/			
Information	g.fortino@unical.it			
PhD website	http://dottorato.dimes.unical.it/			



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PhD Course in Civil and Industrial Engineering

Coordinator	Prof. Enrico Conte – Department of Civil Engineering – Via Pietro Bucci, Cubo 44B - Arcavacata di Rende (CS) – Tel.: 0984.496524 – e-mail: enrico.conte@unical.it – SSD: ICAR/07
Duration	3 years
Proposer Department	Department of Mechanical, Energy and Management Engineering
Other Department Involved	Department of Civil Engineering Department of Informatics, Modeling, Electronics and System Engineering Department of Environmental
Scientific Areas	ICAR/01, ICAR/02, ICAR/04, ICAR/05, ICAR/07, ICAR/09, ICAR/10, ICAR/14 ICAR/17, ICAR/20, ICAR/22, ING-IND/08, ING-IND/09, ING-IND/10, ING-IND/11, ING-IND/13, ING-IND/14, ING-IND/15, ING-IND/16, ING-IND/17, ING-IND/22, ING-IND/24, ING-IND/35.
Research Topics	The PhD program aims to improve and develop skills and knowledge related to the involved curricula: Civil Engineering and Industrial Engineering
Participation Requirements	<ul style="list-style-type: none">– Master of Science (ex DM 270/204): LM-3 Landscaping, LM-4 Architecture and construction-architecture engineering, LM-4 c.u. Architecture and construction-architecture engineering (five years), LM-20 Aerospace and aeronautical engineering, LM-21 Biomedical engineering, LM-22 Chemical engineering LM-23 Civil Engineering, LM-26 Safety Engineering, LM-28 Electrical Engineering, LM-30 Energy and Nuclear Engineering, LM-31 Management Engineering, LM-32 Computer engineering, LM-33 Mechanical Engineering, LM-35 Engineering for the Environment and Territory;– Master Degree (ex DM 509/1999): 3/S (Master in Landscaping), 4/S (Master in Architecture and construction-architecture engineering), 25/S (Master in Aerospace and aeronautical engineering), 26/S (Master in Biomedical engineering), 27/S (Master in Chemical engineering), 28/S (Master in Civil Engineering), 31/S (Master in Electrical Engineering), 33/S (Master in Energy and Nuclear Engineering), 34/S (Master in Management Engineering), 35/S (Computer Engineering), 36/S (Master in Mechanical Engineering), 38/S (Master in Engineering for the Environment and Territory);– Diploma Degree (ante DM 509/1999) equivalent to the aforementioned Master of Science and Master Degrees according to DM 09/07/2009;– Graduate Degree or equivalent to one of the above mentioned Titles awarded by foreign universities legally recognized.
Admission procedure	Evaluation of qualifications and oral exam.
Qualifications and document evaluable	<ul style="list-style-type: none">– Curriculum vitae et studiorum (CV) along with the Master Degree certificate containing the exams taken and the associated scores; for the MSc students who are getting their degree, it is required to provide a certificate containing the exams taken and the associated scores;– Research project proposed by the candidate;– Any publications related to the PhD themes;– Any Master Research Fellowships & Grants related to the PhD themes.



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Maximum score 60 points				
Evaluation Criteria	Evaluation of qualifications		Maximum score 30 points	
	Research Project		Maximum score 15 points	
	CV along with the Master Degree certificate containing the exams taken and the associated scores; for the MSc students who are getting their degree it is required to provide a certificate containing the exams taken and the associated scores		Maximum score 9 points	
	Publications related to the Ph D topics		Maximum score 3 points	
	Master, Research Fellowships & Grants related to the PhD topics		Maximum score 3 points	
	Oral Exam Examination procedures: The oral examination is based on the discussion of the research project proposed by the applicant and the scientific and professional experiences gained. In addition, the knowledge of the English language will be assessed through the comment and/or translation of a scientific article.		Maximum score 30 points	
	The minimum score required for accessing the oral exam and for passing it is 21 points.			
	Positions and grants	n. 6 (six) positions with scholarship granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad.		
Diary of the Examinations	Exam	Date	Hour	Location
	Evaluation of qualifications (the presence of the candidates is not required)	September 20, 2021	9:30 am CEST	
	Oral Exam	September 23, 2021	9:30 am CEST	Aula "Giannattasio" – DINCI, cubo 45B, piano ponte superiore – Università della Calabria, Arcavacata di Rende (CS).
	The results will be published on the PhD website at: dici.unical.it			
Information	enrico.conte@unical.it , domenico.mundo@unical.it			
Website of the course	dici.unical.it			



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Phd Course in Life Science and Technology

Coordinator	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.
Duration	3 anni
Main Department	Department of Biology, Ecology and Earth Sciences (DiBEST)
Subject Areas	BIO/01, BIO/02, BIO/05, BIO/06, BIO/09, BIO/10, BIO/11, BIO/15, BIO/16, BIO/18, CHIM/02, CHIM/06, CHIM/08, CHIM/09, ICAR/03, ING-IND/24, MAT/09, MED/04, GEO/01
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.</p> <p>Biodiversity. Conservation and wildlife risk. Developmental biology. Neurobiology. Morphofunctional cell alteration in eucariotes. Adaptive biology in aquaculture. Behavioural ecology. Morpho-functional organ adaptations in the presence of environmental, physical and chemical stress. New estrogens-dependent molecular mechanisms in hormone-sensitive tumors progression. Molecular and functional characterization of signaling pathways implicated in the physiopathology of plasma cell dyscrasias. 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 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	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



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	<p>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) - Any other qualifications (publications, participation in conferences).</p>	
Assessment criteria	TOTAL SCORE 60/60	
	Evaluation of qualifications	Total score 30/30
	Research Project	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</p>	Total Score: 30



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	project. For foreign candidates there will be the possibility to be examined by using a skype connection			
	Minimum Score required for the admission to the oral examination: 21 point.			
Positions and scholarship	6 (six) positions with scholarship of which: - 5 granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad; - 1 granted by Dibest.			
Agenda	Description	When	Time	Where
	Evaluation qualification (applicant presence not requested)	September 23, 2021		
	Oral Examination	September 27, 2021	10:00 am CEST	Aula Covello Cubo 6 c ponte carrabile- (DiBEST) University of Calabria, Arcavacata di Rende (CS)
	The results of the tests will be published at the web address: http://www.dibest.unical.it and on the bulletin board of the Covello room of DiBEST.			
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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Doctorate in Mathematics and Computer Science

Coordinator	Prof. Gianluigi GRECO – Dipartimento di Matematica e Informatica – Via Pietro Bucci - Cubo 30/B, Arcavacata di Rende (CS) Tel.: +39 0984.496429 – E-mail: gianluigi.greco@unical.it
Duration	3 years
Main Department	Department of Mathematics and Computer Science
Other Department Involved	Department of Mechanical, Energy and Management Engineering
Subject Areas	Computer Science, Algebra, Geometry, Complementary Mathematics, Mathematical Analysis, Probability and Statistics, Mathematical Physics, Numerical Analysis, Operations Research
Research Topics	<p>The main research topics are listed below:</p> <ul style="list-style-type: none">• Artificial Intelligence, Knowledge Representation and Reasoning, Answer Set Programming, Logic Programming, Constraint Satisfaction Problems.• Databases, Data and Knowledge Integration, Data and Text-Mining, Knowledge Management.• Theoretical Computer Science, Game theory, Decidability and Complexity Theory.• Grid Computing, Computational Science, Cellular Automata.• Optimization Models and Methods for solving problems in Transport and Logistics.• Optimization Nonlinear e Machine Learning• Combinatorics• Study of canonical models of surfaces of general type. Algebraic curves and their moduli spaces. Groups and Graphs.• Interactions between algebra and geometry and between geometry and mathematical physics in modern and contemporary Mathematics. Historical developments of the decisions theory. History of the mathematics in the didactical field. Mathematic teaching with particular interest in the role and in the use of the technology.• Calculus of variations. Variational methods in Nonlinear Analysis. Critical point Theory and applications to nonlinear PDE. Geometry of Banach spaces. Local and nonlocal ODE. Approximation methods. Minimum problems and projections. Equilibrium problems. Uniform distribution and discrepancy. Monte Carlo type integration methods.• Random fields, namely: percolation, statistical mechanics, interacting particle systems, dynamic systems, quantitative finance, stochastic simulation and mathematical statistics.• Quantum Theory problems. Group-theoretic approach to the interaction theory. Semiclassical models for the electricity and heat transmission in semiconductors. Coupling problems in devices-electrical networks.• Sequences of Sheffer polynomials and approximation of the involved operators. Numerical approximation of solutions to high order partial differential equations under boundary conditions or initial data. Approximations for Scattered Data and rational interpolation. Applications



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	to engineering problems and statistics.	
Participation Requirements	Italian Specialist/Master's Degree (ex DM 509/1999 e DM 270/2004) or equivalent Degree awarded by an accredited foreign university or Italian University Degree (ante DM 509/1999).	
Admission Procedures	Evaluation of qualifications, written examination and oral examination. The knowledge of the English Language will be assessed during the oral examination.	
Procedures for the admission to the reserved place for candidates with an academic qualification obtained abroad	Evaluation of qualifications and oral examination.	
Assessable qualification	<ul style="list-style-type: none"> - Research Project - Curriculum Vitae et Studiorum (CV), 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 (download the template from www.mat.unical.it/phd/Admission) An additional copy of above-mentioned documents has to send to the following e-mail address: marilena.lovei@unical.it with the object "PhD Admission XXXVII cycle".	
Assessment criteria	Total Score 90/90	
	Assessable Qualification	Total Score 30/30
	Research Project	Total Score 6
	Curriculum vitae et studiorum	Total Score 24
	Written Exam Operating methods: an essay and two exercises on the disciplines pertaining to the doctorate.	Total Score 30/30
	Oral Examination Operating methods: discussion about the project and written examination. Interview on the disciplines of interest for the doctorate. Foreign candidates can take the exam via skype.	Total Score 30/30
	Minimum Score required for the admission to the next tests and for the oral examination: score 21/30 .	
Assessment criteria for the admission to the reserved place for candidates with an academic qualification obtained abroad	Total Score 60/60	
	Assessable Qualification	Total Score 30/30
	Research Project	Total score 6
	Curriculum Vitae at studiorum	Total score 24
	Oral Examination Operating methods: discussion about the project and written examination. Interview on the disciplines of interest for the doctorate. Foreign candidates can take the exam via skype.	Total Score 30/30



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	Minimum Score required for the admission to the next tests and for the oral examination: score 21/30 .			
Positions and scholarship	5 (five) positions granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad.			
Agenda	Description	When	Time	Where
	Assessable qualification (applicants presence not requested)	September 20, 2021		
	Written Exam	September 24, 2021	9:00 am CEST	Classroom A – Cubo 30A, Department of Mathematics and Computer Science – University of Calabria Arcavacata di Rende (CS)
	Oral Examination	September 30, 2021	3:30 pm CEST	Classroom A – Cubo 30A, Department of Mathematics and Computer Science – University of Calabria Arcavacata di Rende (CS)
	The results of the exam will be posted on the site: www.mat.unical.it/phd .			
Agenda for the admission to the reserved place for candidates with an academic qualification obtained abroad	Description	When	Time	Where
	Assessable qualification (applicants presence not requested)	September 20, 2021	9:00 am CEST	
	Oral Examination	September 30, 2021	2:30 pm CEST	Classroom A – Cubo 30A, Department of Mathematics and Computer Science – University of Calabria Arcavacata di Rende (CS)
	The results of the exam will be posted on the site: www.mat.unical.it/phd .			
Information	marilena.lovoi@unical.it			
Phd website	www.mat.unical.it/phd			



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PhD Course in Doctorate in Translational Medicine

Coordinator	Prof.ssa Stefania CATALANO – Dipartimento di Farmacia e Scienze della Salute e della Nutrizione – Edificio Polifunzionale – Arcavacata di Rende (CS) Tel.: +39 0984.496207 – E-mail: stefcatalano@libero.it – SSD: MED/05	
Duration	3 years	
Main Department	Department of Pharmacy, Health and Nutritional Sciences	
Subject Areas	MED/03, MED/04, MED/05, MED/07, MED/46, BIO/10, BIO/12, BIO/13, BIO/14, BIO/15, BIO/16, CHIM/01, CHIM/02, CHIM/03, CHIM/06, CHIM/08, CHIM/09, CHIM/10, AGR/15, L-LIN/12, M-STO/08.	
Research Topics	a) Molecular design b) Molecular basis of diseases and therapeutic approaches for TM	
Participation Requirements	<ul style="list-style-type: none">- Italian Master's Degree (DM 270/04):- LM-6 Biologia, LM-9 Biotecnologie mediche, veterinarie e farmaceutiche, LM-13 Farmacia e farmacia industriale, LM-17 Fisica, LM-21 Ingegneria biomedica, LM-22 Ingegneria chimica, LM-41 Medicina e chirurgia, LM-42 Medicina veterinaria, LM-53 Scienza e ingegneria dei materiali, LM-54 Scienze chimiche, LM-61 Scienze della nutrizione umana, LM-70 Scienze e tecnologie alimentari, LM-71 Scienze e tecnologie della chimica industriale, LM/SNT3 Scienze delle professioni sanitarie tecniche, LM/SNT4 Scienze delle professioni sanitarie della prevenzione;- Italian Specialist Degree (ex DM 509/99): 6/S (specialistiche in biologia), 9/S (specialistiche in biotecnologie mediche, veterinarie e farmaceutiche), 14/S (specialistiche in farmacia e farmacia industriale), 20/S (specialistiche in fisica), 26/S (specialistiche in ingegneria biomedica), 27/S (specialistiche in ingegneria chimica), 46/S (specialistiche in medicina e chirurgia), 47/S (specialistiche in medicina veterinaria), 61/S (specialistiche in scienza e ingegneria dei materiali), 62/S (specialistiche in scienze chimiche), 78/S (specialistiche in scienze e tecnologie agroalimentari), 79/S (specialistiche in scienze e tecnologie agrozootecniche), 81/S (specialistiche in scienze e tecnologie della chimica industriale), SNT_SPEC/3 (specialistiche nelle scienze delle professioni sanitarie tecniche), SNT_SPEC/4 (specialistiche nelle scienze delle professioni sanitarie della prevenzione);- Italian Degree (ante DM 509/99) or equivalent to master's degree listed above.- Academic degree's obtained abroad equivalent to master's degree listed above.	
Assessable qualification	Evaluation of qualifications and oral examination. During the oral examination, the knowledge of the English Language will be assessed.	
Documents to be enclosed	Curriculum Vitae et Studiorum (CV) Research Project Academic qualification and/or job experiences Scientific Publications (eventual)	
Assessment criteria	Total Score 60/60	
	Evaluation Qualification	Total score 30/30
	Research Project	Score 18
	CV	Score 7



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	Academic qualification and job experiences	Score 3		
	Publications	Score 2		
	Oral Examination and knowledge of the English Language: The oral examination is based on the discussion of the research project proposed by the applicant.	Total score 30/30		
	Minimum Score required for the admission to the oral examination: score 21/30			
Positions and scholarship	n. 8 (eight) positions with scholarship of which: - 6 granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad; - 2 granted by Dipartimento Farmacia e SSN "Dipartimento di Eccellenza" in the field of " <i>Identification of novel molecular targets in cancers</i> ".			
Agenda	Test	Date	Time	Room
	Evaluation of qualifications	September 21, 2021	9.30 am CEST	
	Oral examination	September 29, 2021	9.30 am CEST	Aula Seminari Dip. FSSN University of Calabria Arcavacata di Rende (CS)
The results will be published on the PhD website at: www.unical.it/portale/strutture/dipartimenti_240/dfssn/postlaurea/dottorati/				
Information	Dott.ssa Gemma Capparelli Department of Pharmacy, Health and Nutritional Sciences Tel. 0984-493109 Fax. 0984-493107 Email: gemma.capparelli@unical.it			
PhD website	www.unical.it/portale/strutture/dipartimenti_240/dfssn/postlaurea/dottorati/			



UNIVERSITÀ DELLA CALABRIA

PhD Course in Politics, Culture and Development

Coordinator	Prof. Alberto Ventura – Department of Culture, Education and Society – Via P. Bucci, Cubo 18B – Arcavacata di Rende (CS) – Tel. 0984.496523 – E-mail: alberto.ventura@unical.it – SSD: L-OR/10.
Duration	3 years
Main Department	Department of Social and Political Sciences
Subject Areas	IUS/09, IUS/10; IUS/11; IUS/21; L-LIN/01; L-LIN/12; L-OR/10; M-PSI/04, M-PSI/05; M-STO/02; SECS-P/02; SECS-P/07; SPS/02, SPS/04; SPS/07; SPS/08; SPS/10; SPS/11, SPS/12, L-ART/06, M-FIL/05, L-FIL-LET/14.
Research Topics	<p>The research topics correspond to what is dealt with by research groups active in the Departments of Social and Political Sciences, and Culture, Education and Society, as follows:</p> <ol style="list-style-type: none">1. <i>Globalization Processes</i>2. <i>Sustainable Territorial Development</i>3. <i>Food and Territory</i>4. <i>Migration Processes</i>5. <i>Processes of financialization of society</i>6. <i>Economy and Sustainability</i>7. <i>Work and Social Changes</i>8. <i>History and modern and contemporary History</i>9. <i>World History</i>10. <i>Cultural Studies</i>11. <i>Media Studies</i>12. <i>Gender Studies</i>13. <i>Post-colonial Studies</i>14. <i>Conversational Analysis in Institutional Settings</i>15. <i>Discourse Comparative Analysis</i>16. <i>Applied Linguistic Analysis for Educational-Methodological purposes</i>17. <i>Political Systems, Political Parties, Movements and Interest Groups</i>18. <i>Welfare and Social Services</i>19. <i>Politics, Communities and Religions</i>20. <i>Development and Legality</i>21. <i>Psychological Studies</i>22. <i>Prejudice and Social Relations</i>23. <i>Processes of Supranational Integration</i>24. <i>Studies on Citizenship</i>25. <i>Comparative Analysis of Legal Systems</i>26. <i>Administration and Transparency</i>27. <i>Processes of Regionalism and Federalism</i>28. <i>Subsidiarity</i>29. <i>Social Philosophy</i>30. <i>Theory of Justice</i>
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	- Assessment of qualifications



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admission	<ul style="list-style-type: none">- Written exam (consisting of an essay and an English test)- Oral examination
Procedures for the admission to the reserved place for candidates with an academic qualification obtained abroad	<ul style="list-style-type: none">- Assessment of qualifications- Oral examination
Assessable qualification	<p>The following assessable qualifications will be considered:</p> <ul style="list-style-type: none">- <i>Curriculum Vitae</i> and <i>Studiorum</i> (CV);- Publications (if any);- Research project maximum length 4,500 characters, spaces included and bibliography; (maximum length 9.000 for applicants to the reserved position for candidates with an academic qualification obtained abroad). <p>Proposals exceeding or which are not in conformity with the outlined parameters will not be taken into consideration.</p>
Assessment criteria	<p style="text-align: center;"><u>Max score 90/90</u></p> <p><u>Assessment of qualifications</u>: max score 30/30</p> <ul style="list-style-type: none">- CV: max score 10;- Publications: max score 5;- Research project: max score 15. <p><u>Written exam (consisting of an essay and an English test)</u>: max score 30/30</p> <p><u>Assessment criteria</u>:</p> <ul style="list-style-type: none">- Essay regarding general aspects of the group of research themes covered in the Doctoral School: max score 20;- English Language Test (required CEF level: B2): max score 10. <p>The candidates will be presented with three envelopes, each containing an essay title and an English Language Test. Two candidates chosen at random will be invited to choose one of the envelopes which will be opened in public. The duration of the examination will be four (4) hours.</p> <p><u>Oral examination</u>: max score 30/30</p> <p><u>Assessment criteria</u>:</p> <p>during the oral examination candidates will be required to discuss the essay produced during the written examination and the research project submitted.</p> <p><i>Minimum score required for admission to the succeeding tests and for the oral examinations: 21 points</i></p>
Assessment criteria for the reserved place for candidates with an academic qualification obtained abroad	<p style="text-align: center;"><u>Max score 60/60</u></p> <p><u>Assessment of qualifications</u>: max score 30/30</p> <ul style="list-style-type: none">- CV: max score 10;- Publications: max score 5;- Research project: max score 15. <p><u>Oral examination</u>: max score 30/30</p> <p><u>Assessment criteria</u>:</p> <p>during the oral examination candidates will be required to discuss the essay produced during the written examination and the research project submitted.</p> <p><i>Minimum score required for admission to the succeeding tests and for the oral</i></p>



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	<i>examinations: 21 points</i>
Positions and scholarships	n. 5 (five) positions with scholarship granted by University of Calabria one of which reserved to a candidate with an academic qualification obtained abroad;
Agenda	<u>Assessment of qualifications:</u> September 13, 2021 (the presence of candidates is not required). <u>Written exam:</u> September 20, 2021, 9.00 am CEST (classroom SSP1 Cube 1A University of Calabria). <u>Oral examination:</u> September 24, 2021, 10.00 am CEST (meeting room “G. Arrighi”, Department of Political and Social Sciences, ground floor, cube 0B). The test results will be published on the PhD website at https://www.unical.it/portale/strutture/dipartimenti_240/dsps/dottorato/index.cfm
Agenda for the reserved position tests for candidates with an academic qualification obtained abroad	<u>Assessment of qualifications:</u> September 13, 2021 (the presence of candidates is not required). <u>Oral examination</u> September 24, 2021, 9.00 am CEST (meetings room “G. Arrighi”, Department of Political and Social Sciences, ground floor, cube 0B – The test results will be published on the PhD website at https://www.unical.it/portale/strutture/dipartimenti_240/dsps/dottorato/index.cfm
For Contact and Information	E-mail: dottorato pcs.spes@unical.it
Phd course website	https://www.unical.it/portale/strutture/dipartimenti_240/dsps/dottorato/index.cfm



UNIVERSITÀ DELLA CALABRIA

Ph.D. Course in ECONOMIC AND BUSINESS SCIENCES

Ph.D. Coordinator	Prof. Fabio Giovanni Lamantia – Dipartimento di Economia, Statistica e Finanza "Giovanni Anania" – DESF – Via Pietro Bucci - Arcavacata di Rende (CS) 0984.492253 - e-mail: fabio.lamantia@unical.it - SSD: SECS-S/06	
Duration	3 years	
Proposing Department	Department of Economics, Statistics and Finance "Giovanni Anania" (DESF)	
Other involved departments	Department of Business Administration and Law (DISCAG)	
SSD	SECS-P/01, SECS-P/02, SECS-P/03, SECS-P/05, SECS-P/06, SECS-P/07, SECS-P/08, SECS-P/11, MAT/09, SECS-S/01, SECS-S/04, SECS-S/06, IUS/01, IUS/07, SPS/10	
Thematic areas	The Ph.D. in Economics and Business Sciences aims to develop advanced skills in both the theoretical and applied fields of economics, business, statistics, and finance. These skills can be applied in various fields such as universities, study centres and research centres of national and international institutions, research institutions for economic, statistical, and financial sciences, public organizations, institutions, private companies and non-profit organizations.	
Prerequisites to apply	-Second Level Degree (Laure Magistrali ex DM 270/204): LM-16 Finance; LM-31 Management Engineering; LM-40 Mathematics; LM-56 Economic Sciences; LM-77 Business Sciences; LM-82 Statistical Sciences; LM-83 Financial and Actuarial Statistical Sciences - Second Level Degree (Lauree Specialistiche ex DM 509/1999): 19/S Finance; 34/S Management Engineering; 45/S Mathematics; 64/S Economic Sciences; 84/S Business Sciences; 91/S Economic, Financial and Actuarial Statistics - Degree (before DM 09/1999) equalized to one of the above-cited second level degrees according to the DM 09/07/2009 - Degree released by foreign universities equalized to one of the above-cited degrees	
Modalities of the admission to the Ph.D.	Qualifications' evaluation and oral exam During the oral examination, the knowledge of the English Language will be assessed.	
Qualifications and documents	Curriculum vitae et studiorum (CV) Research project Certificates testifying the knowledge of the English language	
Evaluation criteria	Maximum score 60 points	
	Qualifications' evaluation	Maximum score 30 points
	Research project	Maximum score 13 points
	Curriculum vitae et studiorum (CV)	Maximum score 15 points
	Certificates testifying the knowledge of the English language	Maximum score 2 points



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	Oral exam Modalities: Oral exam on economic and business themes and on the research project	Maximum score 30 points		
	Minimum score to be admitted to the next exam: 21 points			
Positions and grants	6 (six) positions granted by the University of Calabria, two of which reserved to candidates with an academic qualification obtained abroad.			
Scheduling of the exams	Exam	Day	Timetable	Place
	Qualifications' evaluation (without candidates)	September 23, 2021	9:00 a.m. CEST	
	Oral exam	September 24, 2021	9:00 a.m. CEST	Aula seminari Dipartimento di Economia, Statistica e Finanza "Giovanni Anania" - Cubo OC – Piano Terra – University of Calabria – Arcavacata di Rende (CS). Oral exam via Skype for candidates with academic qualifications obtained abroad.
	Results of the exams will be published on the following website: http://www.unical.it/portale/didattica/phdsea/			
Contact for information	Dott. Giovanni Dodero – Mail address: giovanni.dodero@unical.it			
Web site	http://www.unical.it/portale/didattica/phdsea/			



UNIVERSITÀ DELLA
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PhD Course in Science and Engineering of the Environment, Construction and Energy

Coordinatore	Prof. Salvatore Critelli - Department of Biology, Ecology and Earth Sciences (DiBEST) – Via Pietro Bucci – Cubo 15B - Tel.: 0984/493678 – E-mail: salvatore.critelli@unical.it – SSD: GEO/02	
Duration	3 years	
Proposer Department	Department of Environmental - DIAM	
Other Department Involved	Dipartimento di Ingegneria Informatica, Modellistica, Elettronica e Sistemistica – DIMES Department of Mechanical, Energy and Management Engineering – DIMEG Department of Biology, Ecology and Earth Sciences (DiBEST) Department of Physics Department of Civil Engineering Department of Chemistry and Chemical Technologies - CTC Department of Business and Law - DIScAG	
Scientific sectors	MAT/07, CHIM/04, CHIM/06, CHIM/07, FIS/01, FIS/07, FIS/08, GEO/01, GEO/02, GEO/04, GEO/05, GEO/06, GEO/07, GEO/08, GEO/09, GEO/10, GEO/11, ICAR/02, ICAR/08, ICAR/09, ING-IND/22, ING-IND/24, ING-IND/25, ING-IND/26, ING-IND/27, ING-IND/33, ING-INF/01, ING-INF/04, IUS/09, IUS/20, L-ANT/09.	
Research topics	The PhD program aims at developing skills in basic and applied sciences, from civil and environmental engineering to the industrial and information one, from complex systems to scientific communication. In particular, main topics are: <ul style="list-style-type: none">• modelling and simulation of complex systems,• measuring equipment and sensors,• resources and natural hazards, soil conservation and pollution,• evolution of geological processes and georesources,• territory, architecture, buildings and cultural heritage,• energy, innovative materials and industrial change,• communication and dissemination of scientific and technological culture / science education.	
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



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	Research Project	Maximum score 20 points		
	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			
Application scholarships	9 (nine) positions with scholarship of which: - 6 granted by University of Calabria one of which reserved to candidate with an academic qualification obtained abroad; - 2 granted by Escuela Superior Politecnica de Chimborazo reserved to Epoch Professor's on the topic " <i>Environmental impact of artisanal and industrial gold mining on aquifers and rivers in Ecuador</i> "; - 1 granted by CNR/IPM srl on: " <i>Functionalization and chemical modification for new "more sustainable polymeric membranes"</i> ".			
Agenda	Test	Date	Time	Room
	Assessment of documents and publications (the presence of applicants is not required)	September 20, 2021		
	Oral examination	September 28, 2021	9:00 a.m. CEST	Cubo 45A - Aula Seminari del Dipartimento di Ingegneria Ambientale (DIAM) Università della Calabria (CS)
	The test results will be posted on the website https://diatic.unical.it/			
Contact for information	salvatore.critelli@unical.it; tel. 0984-493678; marinella.tedeschi@unical.it; 0984-496650			
PhD website	https://www.unical.it/portale/strutture/dipartimenti_240/dibest/ricerca/dottorati/siace/			



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PhD Course in PHYSICAL, CHEMICAL AND MATERIALS 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/02, CHIM/03, CHIM/06, 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	Maximum score 30 points
	Research project	
	CV and any previous research experience	
Eventual published articles		
Oral examination	English presentation of the candidate research project and eventual discussion on papers published by the candidate.	Maximum score 30 points



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	Minimum score to reach the position: 21 pt			
Positions and scholarship	6 (six) positions with scholarship of which: - 2 granted by University of Calabria on the topics of area “Physical sciences and technologies”; - 2 granted by University of Calabria on the topics of area “Advanced materials: chemistry and technologies” - 1 granted by University of Calabria reserved to candidate with an academic qualification obtained abroad. - 1 granted by INFN on the topic: “Physics of fundamental interactions”.			
Agenda	Description	Date	Time	Room
	Qualification assessment (presence of candidates not requested)	September 20, 2021	3.30 pm CEST	
	Oral examination	September 23, 2021	9.30 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://www.unical.it/portale/strutture/dipartimenti_240/fisica/didattica/dottorato/stfcm/presentazione/			
Information	Dott.ssa Chiara Perri 0984/494006 - E-mail: chiara.perri@fis.unical.it			
Phd website	https://www.unical.it/portale/strutture/dipartimenti_240/fisica/didattica/dottorato/stfcm/presentazione/			



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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 under the Italian penal code and all other applicable laws (art. 46 DPR 445/2000):

hereby declare

to be in possession of the following access title pursuant to art. 2 of the selection notice:

(Indicate the title of study - date, University and eventual exams - requested in article 2 of call for application and eventual other title)

Blank lines for providing details of the access title.

Please note: information reported on this affidavit will be used for the official purpose for which they have been required (D.Lgs. n. 196/2003).

Place and date, _____

Declared by (legible signature)

Blank line for signature.

*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.



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ANNEX C
DECLARATION OF PHD POSITION OPTIONS

To the Rector of the University of Calabria
- via Pietro Bucci - 87036
ARCAVACATA DI RENDE (CS)

The undersigned _____ Fiscal Code: _____ Place of
birth _____ date of birth _____ Sex M / F _____ residence (city)
_____ prov. _____ road _____ n. _____ cap _____ tel. _____ mobile phone
_____ e-mail _____ address chosen for the purposes of the call (if
it's different from resident): city _____ prov. _____ cap _____ road _____ n.

ASKS

to be admitted to participate in the call for application to the XXXVII cycle of the Ph.D. course in
_____ at this University for the awarding of the University scholarships (topic
_____ where provided for in Annex A)

also ASKS

to be admitted to the assignment of the following places with a scholarship with thematic financed by:

- Department _____ (indicate Department) on the subject _____
- External Body _____ (indicate External Body) on the subject _____

He/She declares to be aware that the exercise of the option for the awarding of scholarships financed by
University Departments or External Body is a priority and binding choice.

Finally, he/she declares that he/she has read and accepted all the rules contained in the call for application

Date: _____

Signature

Annex Identity document