

Amministrazione centrale Area Ricerca e Trasferimento Tecnologico Settore Dottorati, Assegni e Borse di Ricerca

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# PUBLIC COMPETITION FOR ADMISSION TO CYCLE XXXIX - Ph.D. COURSES - ACADEMIC YEAR 2023/2024

# THE RECTOR OF THE UNIVERSITY OF L'AQUILA

IN FORCE OF law n. 476, August 13, 1984, establishing rules on university scholarships;

IN FORCE OF law n. 398, November 30, 1989, establishing rules on university scholarships;

**IN FORCE OF** article n. 4 of law n. 210, July 3, 1998, which provides that the universities, with their own regulation establish their Ph.D. schools;

IN FORCE OF article 19 of law n. 240, December 30, 2010;

**IN FORCE OF** to Art. 47 of Decree Law n. 77 of May 31, 2021, converted into Law n. 108 of July 29, 2021, under the heading "Equal Opportunity and Employment Inclusion in Public Contracts, the PNRR and the PNC;

**IN FORCE OF** D.P.C.M. of April 9, 2001 "Disposizioni per l'uniformità del trattamento sul diritto agli studi universitari" according to article n. 4 of law n. 390, December 2, 1991;

IN FORCE OF legislative decree n. 68, March 29, 2012;

**IN FORCE OF** law n. 232, December 11, 2016, and, in particular clause 262, which establishes that "For Ph.D. students, not scholarship holders, tuition fees are waived";

**PURSUANT TO** DD. MM. 509/1999 e 270/2004 which provides rules about the didactic autonomy of Universities;

**PURSUANT TO** D.M. n. 226 of December 14, 2021 "Regolamento recante modalità di accreditamento delle sedi e dei corsi di dottorato e criteri per la istituzione dei corsi di dottorato da parte degli enti accreditati";

**PURSUANT TO** D.M. n. 247 of February 23, 2022 which restated the gross annual amount of Ph.D. scholarships;

**PURSUANT TO** the rules for the admission of foreign students to the university course published on MIUR web site;

**PURSUANT TO** the Regulation of the Ph.D. Schools of the University of L'Aquila, renewed by Rectoral Decree n. 787/2022 of 2022, June 1<sup>st</sup>;

**HAVING REGARD TO** Ethical Code of University of L'Aquila issued by D.R. n. 1777/2022 of 2022, December 30<sup>th</sup>;

**HAVING REGARD TO** the National Recovery and Resilience Plan (NRP) approved by ECOFIN Council Decision on 13/07/2021;

HAVING REGARD TO the Ministerial Decree n. 117 of March 2, 2023, regarding the allocation, for the academic year 2023/2024, from the PNRR, Mission 4, component 2 "From Research to enterprise" - Investment 3.3 "Introduction of innovative doctorates that respond to the innovation needs of businesses and promote the recruitment of researchers from businesses", including the savings made available from the financial allocations under Article 3, Paragraph 2, of the Decree of the Minister of University and Research No. 352 of April 9, 2022, of No. 13.292 three-year doctoral scholarships for the attendance of pathways for



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innovative doctorates accredited under DM 45/2013 XXXVII cycle - Academic Year 2021/2022 and to be accredited under DM 226/2021 XXXIX cycle - Academic Year 2023/2024;

HAVING REGARD TO the Ministerial Decree n. 118 of March 2, 2023, regarding the allocation, for the academic year 2023/2024, from the PNRR, Mission 4, component 1 "Strengthening the offer of educational services: from kindergartens to universities" - Investment 3.4 "Didactics and advanced university skills" and Investment 4.1 "Extension of the number of research and innovative doctorates for public administration and cultural heritage", including the savings made available from the financial allocations referred to in Article 3 paragraph 2 and Article 3 paragraph 3 of Ministerial Decree 351 of April 9, 2022, of 5.478 three-year doctoral scholarships for the attendance of doctoral programs accredited under Ministerial Decree 45/2013 and under Ministerial Decree 226/2021;

**HAVING REGARD TO** the outcomes of the procedures called by the University to identify the PhD courses for which to activate the grants funded under the PNRR (European Union-funded program - NextGenerationEU) and select the related research projects, pursuant to Article 7 of Ministerial Decree 117/2023 and Article 11 of Ministerial Decree 118/2023;

**TAKEN NOTE** that for each investment line, project identification codes (CUP) have been associated with the PhD courses as identified above;

HAVING REGARD TO the minutes of the Academic Senate meeting of 23/05/2023;

**HAVING REGARD TO** the minutes of the Board of Administration meeting of 24/05/2023;

# HEREBY DECREES ART. 1 ESTABLISHMENT AND ACTIVATION

The University of L'Aquila (Italy) has approved and activated Cycle XXXIX Ph.D. Courses – Academic Year 2023/2024. The courses' duration is three years and start on 1<sup>st</sup> November, 2023.

The activation of the places financed or co-financed under the PNRR funds is also subject:

- to the effective allocation of resources by the MUR;
- to the finalization of the agreements with the companies and the provision of the surety guarantee by the companies for the co-funded posts.

#### ART. 2 Ph.D. Courses

- 1. Public competition procedures based on qualifications and examinations for admission to the below listed Ph.D. Courses have been activated:
- Ph.D. Course in CIVIL, CONSTRUCTION-ARCHITECTURAL AND ENVIRONMENTAL ENGINEERING
- Ph.D. Course in INFORMATION AND COMMUNICATION TECHNOLOGIES ICT
- Ph.D. Course in INDUSTRIAL AND INFORMATION ENGINEERING AND ECONOMICS
- Ph.D. Course in LITERATURES, ARTS, MEDIA: THE TRANSCODIFICATION
- Ph.D. Course in MATHEMATICS AND MODELING
- Ph.D. Course in CLINICAL MEDICINE AND PUBLIC HEALTH



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- Ph.D. Course in EXPERIMENTAL MEDICINE
- Ph.D. Course in HEALTH AND ENVIRONMENTAL SCIENCES
- Ph.D. Course in PHYSICAL AND CHEMICAL SCIENCES
- 2. For each of the aforementioned courses, the forms attached to this announcement and which form an integral part of it, indicate the places and scholarships available, the curricula of each course, where applicable, the research topics and the respective scientific contact for the scholarships financed or co-financed from PNRR funds (with the relative CUP) or by external Bodies / Institutions, the methods and criteria for selecting candidates, the schedule of exams.

Candidates can access the aforementioned forms, published on the University Portal on page https://www.univaq.it/en/section.php?id=2207&lang\_s=en by selecting the chosen Ph.D. course.

3. The places and scholarships may increase if further funding becomes available, without prejudice to the terms for submitting the application for admission indicated in the following art. 5.

# ART. 3 Requirements for Activation

The minimum number of approved applications necessary to activate the aforementioned Ph.D. courses must be not less than 3 – by "approved applications" we mean candidates that have successfully passed the admission exams and fulfilled all administrative procedures for enrolment in the selected Ph.D. course.

The number of available grants may increase if funding from other sources is provided, as long as such funding is made available by the deadline established in this announcement.

Notice about the increasing will be given on the web site: https://www.univaq.it/en/section.php?id=2207&lang s=en.

Failure on behalf of public or private institutions to comply with funding procedures will result in fewer available positions.

The number of available grants may increase if the MUR approves specific projects that can be funded by European funds, for which doctoral grants are envisaged, even after the expiration date of this call.

# ART. 4 Requirements for Access

- 1. Those who, at the expiry of the deadline for submitting the application for admission, are in possession of one of the following qualifications can participate in the selection, without age or citizenship restrictions:
- a) master's or specialist degree;
- b) degree from the system prior to the Ministerial Decree n. 509/1999 (old system);
- c) second level academic qualification issued by institutions belonging to the AFAM (Higher Artistic and Musical Education) sector;
- d) qualification obtained abroad, recognized as equivalent to the aforementioned second level academic qualifications.

The academic qualification held by the candidate must refer to a course with a duration of at least 4 years and allow the access to a Ph.D. course in the country in which it was awarded.



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Candidates holding a foreign Degree who have not as yet obtained certified equivalency required for the admission to the Ph.D. course, must include the following documents in their application (necessary for the Examination Commission to evaluate the Degree as conforming to requirements):

- a copy of the Degree certifications obtained (Bachelor e Master Degree), with a transcript of records of the exams taken and an Italian or English translation provided by the applicant under his/her responsibility;
- any other documentation deemed useful for the qualification assessment (Diploma Supplement, declarations etc...).

Eligibility of the qualification will be verified by the Course's Admission Committee and will only be granted for the sole purpose of admission to the chosen Ph.D. course.

- 2. Candidates already in possession of the Ph.D. title obtained in the national territory can participate in the selection exclusively for places not covered by a scholarship.
- 3. Students enrolled in medical specialization schools can participate in the selection only if in the academic year 2023/2024 they are enrolled in the last year of that school.
- 4. Candidates who, on the expiry date of this announcement, do not possess the requisites referred to in paragraph 1, will be admitted to the selection with reserve. The qualification required for access to PhD courses must be achieved by the completion date of the enrollment, and in any case no later than the start date of the course.

# ART. 5 Applications, terms and conditions

1. The application form may only be submitted using the dedicated online procedure, available at: https://pica.cineca.it/univag/dottorato39.

Applications must be submitted no later than the August 24, 2023 at 1 p.m. (CEST).

The application must be signed. <u>The absence of the signature, or of the handwritten signature, implicates</u> the exclusion from the public competition.

There are 3 methodologies to sign it and the candidate must select one of them and read carefully they directions.

- By digital signature using smart card, USB token or remote signature which allow the owner to sign general documents by means of a signature software or a Remote Signature web portal made available by the Auditor. Those who have a Digital Signature smart card or USB token shall verify that they are compatible with the Digital Signature system integrated in the system server. If so, the owner may sign the application directly in the system server (e.g. ConFirma);
- Those who do not have compatible digital signature devices and the Remote Digital Signature Owners who may access a web portal for signing general documents shall save in their own PC the .pdf file generated by the system and, without modifying it, digitally sign it in CAdES format. A .p7m file will be generated, which shall be saved and uploaded again in the system. Any editing to the file before signing with the Digital Signature shall interfere with the automatic check of correspondence between the content of such a document and the original, and this will bring to the application exclusion;
- If none of the above-mentioned options can be used candidates shall save in their own PC the .pdf file generated by the system and, without modifying it, print and sign it with full original signature in the last page of the printed document. A scanned .pdf copy of such a document shall be produced and the file thus obtained shall be uploaded to the system.

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In case the access to the platform is via SPID, it is not necessary to sign the application with one of the aforementioned methods.

Candidates intending to apply for more than one Course must complete a separate application for each chosen Course.

In case the selected Ph.D. course foresees:

- positions reserved to candidates with scholarship holders funded by foreign countries;
- positions without scholarship reserved to candidates holding a title acquired abroad

candidates are compulsory required to clearly mention it in the application form.

Candidates who competes for places reserved for scholarship holders from foreign countries, must indicate in the application for admission who finances the scholarship and attach the documentation relating to the grant.

- 2. When filling the application, candidates must:
- select the chosen PhD course:
- indicate the curriculum where required. The preference expressed in the application form will be indicative of the candidate's interests and not binding;
- select the type of seat. In the case of an ordinary seat, it is possible to express a preference for themed scholarships, up to a maximum of three, by opening the appropriate menu;
- attach the qualifications required and indicated in the form of the chosen PhD course and a copy of the identity document.

#### The lack of a copy of the identity document is cause for exclusion from the selection.

- -pay an administration fee of € 10,00. Candidates can make fee payment by clicking on "Paga con Pago PA", selecting form of payment:
- ➤ Credit/debit card:
- ➤ Direct payment from bank account;
- > Other methods of payment and payment systems which allow for PagoPA procedures.

Only for candidates resident abroad: if it is not possible for candidates to pay using the PagoPA system, payment will also be accepted by bank transfer payable to: Università degli Studi dell'Aquila - Piazza Santa Margherita 2 - 67100 L'Aquila, avente le seguenti coordinate bancarie: IBAN: IT18T0538703601000000198036 - Codice SWIFT: BPMOIT22XXX - causale: "Entry in Ph.D. competition in \_\_\_\_\_\_". Only candidates making payment in this way are required, before deadline date, to attach a copy of the bank transfer payment and a declaration of failed administration fee payment by Pago PA.

Failure to pay the competition fee is cause for exclusion from the selection.

Under no circumstances can refunds be issued (i.e. exclusion, withdrawal, absence, etc.). The sole fee payment of  $\in$  10,00 does not in itself constitute an application in the absence of an online application form, even if payment is made before the deadline.

If the candidate is applying for more than one course, each application must be completed with the relative required documents. All documentation must be attached in pdf format.



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In addition, the applicant must pay the administration fee of € 10.00 for each application he/she intends to submit.

For all legal purposes, the application is to be considered as a self-certification of the data included therein, in accordance with articles 46 and 47 of Italian Presidential Decree no. 445/2000 and subsequent amendments.

3. The candidate can, where applicable, request **reference letters.** A notification will be sent automatically sent to the selected referee only when the application has been fully submitted. The referee must compile the reference letter scheme and submit it by the deadline of August 30, 2023, at 1:00 p.m. CEST.

Reference letters attached by the candidate will not be taken into consideration.

4. The application is automatically sent to the University when the online procedure has finally been completed. Therefore, no paperwork needs to be delivered or sent to the University's offices.

Candidates are invited to complete applications for the selection process well in advance of the closing date specified in this call. Candidates are responsible for verifying that the procedure is completed correctly. No complaints will be accepted for any malfunctioning of the IT system due to overload experienced by candidates near the closing date.

After the deadline of the call it will no longer be possible to change the application for participation.

In force of Italian Law no. 104/92, as amended by Italian Law no. 170/99, disabled candidates may request an individual examination (with the use of aids, any additional time required, etc.) to complete the required entry examinations.

In accordance with Italian Law no. 170/2010, candidates with specific learning disabilities are allowed 30% more time to complete written exams, if required for the selection process for admission to the chosen Ph.D. course, subject to a request for an individual examination. The request must be written in accordance with the instructions available as part of the online application procedure for the selection process.

According to the art. 15 of Law 183/2011 and following the interpretation done by the Directive of the Presidency of the Council of Ministers, signed by the Minister of Public Administration and Simplification, n. 61547 of 22/12/2011, the University can't accept certifications issued by other Public Administrations.

Therefore, if the titles declared by candidates and attached to the application for admission to the competition, have been issued by Italian public universities, they must only be self-certified.

Following the rules on self-certification, the University will verify the veracity of the self-certification, pursuant to the Consolidated Law on Finance. 445/2000.

### ART. 6 Foreign Candidates

With the aim of fostering student mobility, the Ph.D. courses in this announcement can include for the following positions as specified in the charts above:

- 1. Positions reserved for candidates selected within specific student mobility projects the University participates in (in these cases the selection procedures will follow its specific rules);
- 2. Positions reserved for foreign scholarship recipients;
- 3. Positions not covered by scholarships and reserved for candidates who have obtained their Degree abroad;



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4. Positions with scholarship provided by the University of L'Aquila reserved for candidates who have obtained their Degree abroad.

Candidates corresponding to the case under 1), must not follow the online procedure - they shall be contacted by e-mail.

Candidates corresponding to the case under 2) shall obtain supernumerary positions in the Ph.D. Course selected once they have passed admission requirements.

These candidates, as required by art. 5 of this Call, must indicate in the application for admission the foreign body that finances the scholarship and attach the documentation relating to the contribution.

Candidates corresponding to the cases under 2), 3) and 4) will find admission procedures indicated in the specific description of the Ph.D. Course they are interested in. Positions will be assigned in accordance with the final rankings obtained following the admission exams and requirements.

The reserved positions not covered by the candidates (corresponding to the cases under 3, 4), shall become part of the regular selection procedure and assigned according to admission examination results.

# ART. 7 Examinations

1. The examination procedures and the dates of the exams are indicated in the Article 2.2 of the above reported schemes of each doctoral course. These dates are to be regarded as official legally-binding calls.

Candidates will therefore not receive any other sort of call or summons by the University as to the exams prescribed for the Ph.D. Course they have applied for.

The candidate does not have to be present during qualification assessment procedures.

#### ANY CHANGES IN DATES AND TIMES WILL BE MADE PUBLIC ON THE UNIVERSITY WEB-SITE

# A candidate who is not present at the time and place indicated for the examination will automatically excluded from the competition.

2. To sit the prescribed exams for the course applied for, candidates must be present on the dates and times indicated in the above mentioned schemes and provide a valid identification card.

For some Ph.D. courses, as indicated in the relevant descriptive tables, candidates may request to sit the oral exam in another language other than Italian (check for details).

Candidates, only if indicated as an option in the chosen Ph.D. Course, sit the oral exam via web conference communication systems. In this case, the candidate is required to provide contact information in their application and guarantee the use of a web-cam to allow the Commission to verify the candidate's identity.

Furthermore, during the interview, the Commission Board will assess the suitability of the candidate in relation to the research topics of the restricted-topic scholarships indicated in the application form.

If one or more scholarships are not awarded due to the established lack of eligibility in the examination or because they were not chosen at the time of registration for the competition, the Commission may, after checking the availability of the candidate(s)/applicant(s), proceed to assess the eligibility of the candidate(s).



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# ART. 8 Examination Committee and competition rules

1. The Examination Committee, designated by the Board of Professors, is appointed by the Rector through a specific decree and is composed by a minimum of three to a maximum of five members among professors and assistant professors. At least one of the members must be full or associate Professor.

Having regard to Italian Law about "Equal Opportunities for Men and Women" and specifically to Art. 57 of the Leg. Decree n. 165, 30 March 2001, at least one third of the Examining Board has to be women, except impossibility to be demonstrated when the Board proposal is made. In any case the gender balance must be respected: each gender must be represented at least by one third of components.

Having regard to Art. 35 bis of the Leg. Decree n. 165, 30 March 2001, Individuals condemned for crimes – even if not yet sentenced – in Book II of the Italian Penal Code ("crimes by civil servants against public administration") cannot be nominated as members of the Examining Board.

#### Teachers who have issued letters of reference to candidates cannot be part of the exam boards.

- 2. For PhD courses that included places financed or co-financed under the PNRR (DD.MM. 117 and 118) or in any case financed by external Bodies, the Commission can be integrated by a representative of the funding body.
- 3. The Commission can carry out the preliminary meeting and the meeting related to the evaluation of the candidates' qualifications electronically. Insofar as they are compatible, the rules of the University Regulations on the subject are guided (D.R. n. 319/2020 of March 17,2020).
- 4. The candidate's scores will be indicated out of a total of 100 points.

The results of the assessment of the qualifications will be published on the web site of the University https://www.univaq.it/en/section.php?id=2207&lang\_s=en and on the web site of the concerned Department and/or the Ph.D. web site.

The results of the written exam, signed by the President and by the secretary of the Examination Committee, will be published on the Department's notice board and/or the site of the Department where the test was conducted.

At the end of the session the Examination Committee draws up the list of the interviewed applicants with the obtained scores.

This list, signed by the President and by the secretary of the Examination Committee will be published on the web site of the Department at which the test was conducted, on the same day of the oral examination.

# ART. 9 Rankings and assignment of scholarships

1. Once all the interviews have been completed the Examination Committee draws up the final ranking list according to the sums of the obtained scores.

In the case of having the same score, gender balance is taken into account (the gender that prevails is the less represented one among candidates placed in higher positions of the same ranking list). Where there are further equal results, the younger candidate will prevail.



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In the frame of the above mentioned ranking, the scholarships concerning specific themes or research projects will be assigned by the Evaluation Board, on the basis of the suitability check pursuant to art. 7.2 paragraph

In the event that more than one candidate is eligible for the same theme scholarship, the Commission will allocate the scholarship on the basis of the merit ranking.

Candidates who rank in positions that make them eligible for more than one thematic scholarship, will be assigned one of these possible scholarships by the Examination Committee.

Regarding at the reserved positions, if specific modalities of admission are envisaged, the Commission shall draw up a specific merit list.

The University Administration makes this list public by publishing it on the official notice board of the University <a href="https://www.univaq.it/section.php?id=1391">https://www.univaq.it/section.php?id=1391</a> and on the University web site <a href="https://www.univaq.it/en/section.php?id=2207&lang\_s=en">https://www.univaq.it/en/section.php?id=2207&lang\_s=en</a>, once the validity of the examination procedure has been checked.

The applicants will obtain a Ph.D. position according to their position on the ranking list. If the candidate obtains equal position in more than one Ph.D. course, he/she must choose one course.

# ART 10 Enrolment in Ph.D. Courses

1. Successful candidates must submit their enrolment through the University of L'Aquila official website https://www.univaq.it/en/section.php?id=2207&lang\_s=en, within 15 days from online publication of selection results.

No information will be sent to the candidate's home. Candidates granted admission to the Courses are responsible for checking enrolment dates and procedures.

Failure to enroll by the deadlines set for each Course will be considered as drop out and the place will subsequently be assigned to the next candidate according to the ranking.

Successful candidates, who are admitted to the competition conditionally, will also have to produce self-certification that they have been awarded the degree within 3 days of obtaining it.

The enrolment forms, available on the University website, duly signed, must be delivered to the "Settore Dottorati, Assegni e Borse di Ricerca", within the deadline foreseen for the enrolment. The documents can be delivered in one of the following ways:

- by certified e-mail (PEC) addressed to <a href="mailto:protocollo@pec.univaq.it">protocollo@pec.univaq.it</a>.

  The certified e-mail account used must be the candidate's personal account. The administration shall not accept documents from candidates using certified e-mail accounts belonging to other individuals or to institutions. The University Administration declines all responsibility for any non-deliveries or misdeliveries of the documents sent via PEC or in case the documents attached to it are non-readable or damaged.
- The date of submission will be indicated on the receipt sent automatically by the PEC system.
- by mail addressed to concorso.dottorati@univaq.it. All documentation must be attached in pdf format.



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The documents to submit compulsory are the followings:

- a) Enrolment form;
- b) Self-Declaration in substitution of certification and Self-Declaration in substitution of attested affidavit in accordance with articles 46 and 47 of the Presidential Decree 28th December, 2000, n.-445 (using the forms available on the University website <a href="https://www.univaq.it/section.php?id=684">https://www.univaq.it/section.php?id=684</a>);
- c) a copy of an identity document;
- c) a photocopy of the candidate's fiscal-code number;
- d) a photocopy of the candidate's "Italian-residency permit" (permesso di soggiorno) only for non-EU citizens.

#### Foreign citizens must declare possessing the following requisites:

- 1. that they benefit from civil rights and right to vote in their country;
- 2. that, aside from Italian citizenship, they possess all other requisites required for citizens of the Italian Republic.

Applicants holding a university Degree awarded abroad must enclose, also, the following documents, translated and certified by competent Italian Diplomatic Authorities:

- copy of their university degree with "Declaration of Value" provided by the Italian Embassy/consulate operating in the student's country of residence;
- Transcript of records of the exams given during the degree course and marks awarded.

Alternatively, the winner may present the certificate of comparability issued by CIMEA as part of the agreement stipulated with the University of L'Aquila (https://www.cimea.it/pagina-attestati-di-comparabilita-e-verification-of-qualifications).

For the registration, please enter the service Diplome, via the following link https://cimea.diplome.eu/univaq/#/auth/login.

If the above documentation is not available at the time of enrolment, the candidate's enrolment shall be deemed "subject to verification". In this case all above mentioned compulsory documentation must be consigned by and no later than the 31st December 2023, failure to do so will result in expulsion from the course.

Candidates with a qualification obtained abroad, when they arrive in Italy, are required to deliver the originals of the documentation relating to the qualification to the Settore Dottorati, Assegni e Borse di Ricerca.

#### Scholarship winners must present a:

- self-declaration to obtain the scholarship for the Ph.D. course they have earned admission to;
- Scholarship accreditation form.

Within 15 days from the start of the Ph.D. Course, candidates who have been conferred a scholarship must send by mail a photocopy of a receipt from the INPS (national social security service), certifying that they have been registered in "posizione contributiva alla gestione separata" (for information visit the INPS web-site at <a href="https://www.inps.it">www.inps.it</a>).



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False declarations shall lead to the candidate's expulsion from the Ph.D. course and to prescribed sanctions for such offenses, vacant positions will be assigned to other candidates according to the ranking list.

2. Successful candidates who do not want to enroll in the course they have been selected for, must immediately send a signed letter of renouncement enclosing a photocopy (front-back) of their identity card.

When candidate, even if not winner of the competition, have right to be enrolled, the suitable candidate entitled to be enrolled will receive a communication to the e-mail address indicated on the application for participation in the competition. Candidates selected as replacements must write a letter of acceptance within three days of the aforementioned email. All other necessary documents indicated in this announcement must be consigned within, and no later than, ten days after receiving notification.

Failure to enroll by the deadline indicated is equivalent to tacit renunciation.

# ART. 11 Connection with specialization schools

Students enrolled in specialization schools in the Medical area that in the academic year 2023/2024 will be enrolled in the last year of the course, if winners of the admission competition, they can enroll in the chosen doctoral course if they have obtained from the Board of the Specialization School and the Teaching Body the certificate of compatibility of the joint attendance, on the based on the distance between the sites and on the evaluation of the activities and commitment envisaged by the Specialization School and the PhD Program.

The trainee can ask the Academic Board to reduce the PhD course, not exceeding one year, by attaching to the request a certificate of the research activities already carried out issued by the Board of the Specialization School.

The acceptance of the application is arranged by the Board of Professors following the assessment of the consistency of the research activities already carried out in the medical specialization course with the doctoral project.

During the joint attendance period, students enrolled in specialization schools will not be able to take advantage of a scholarship for a research doctorate or other forms of funding.

### ART. 12 Public Employee

Public employees admitted to PhD courses can be placed on request, compatibly with the needs of the Administration to which they belong, on extraordinary leave for study purposes without paychecks for the duration of the course and take advantage of the scholarship where applicable the required conditions.

If the winner of a Ph.D. scholarship funded by PNRR or by public or private organization, who already is a public employee or who will became a public employee during the Ph.D. course, he/she must request a special leave for study reasons, without checks, to his/her organization for the entire duration of the course. If he/she cannot obtain the abovementioned special leave, he/she cannot enroll or continue the Ph.D. course.



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In the event of admission to PhD programs without a scholarship, or renouncing this, the interested party on leave retains the economic, social security and retirement benefits granted by the public administration with which the relationship of work is established.

If, after obtaining the research doctorate, the employment relationship with the public administration ceases by the decision of the employee in the following two years, the repetition of the amounts paid is due.

Public employees who have already obtained the title of PhD, nor public employees who have been enrolled in PhD courses for at least one academic year, benefiting from this leave, are not entitled to extraordinary leave, with or without paychecks.

The public employee who does not apply for leave, or in the event that the leave is not granted by the institution to which they belong, can continue their studies only with the favorable opinion of the Faculty Board.

The period of extraordinary leave is useful for the purposes of career progression and retirement and social security benefits.

### ART. 13 Grants – Scholarships

1. The grants available indicated in the Ph.D. chart (art. 2.2) are assigned according to the ranking list drawn up by the Examination Commission.

A Ph.D. gross grant consists of  $\in$  16.243,00 which includes health and social security taxes that, on 2023, amounts to 35,030%, but only 11,677% is paid by the beneficiary.

From the fist year of each Ph.D. course, for each PhD student with or without a scholarship, a research budget, not less than 10% of the total sum of the grant conferred, will also be available for research activity in Italy or abroad.

2. Grants are yearly provided and are renewed on the condition that the Ph.D. student has completed all programmed activities for the course during the previous year.

If the Ph.D. student is not positively assessed for the purpose of renewing the scholarship, or renounces it, the unused amount remains available to the Institution, for the same purposes.

A Ph.D. scholarship cannot be cumulated with other grants except for those provided by national or foreign institutions which are aimed at integrating the Ph.D. student's research activity with periods abroad.

The payment of the scholarship is done by monthly installment.

Candidates who have already benefited from other Ph.D. study grants in Italy (even if only for one year) are not eligible to receive another grant.

If Ph.D. student does not respect what is indicated in article 15 paragraph 6 of Ph.D. regulations, his/her scholarship will be stopped.

3. Grants provided by PNRR funds, other Universities and public or private bodies are linked to specific research topics. These grants shall be assigned by the Examination Committee, candidates to whom grants are conferred have to find out all the details and conditions regarding the grant before accepting.

In case a scholarship funded by subjects external to the University is awarded, whether they are public or private entities, the amount will be disbursed only if the corresponding funding has been received.



Amministrazione centrale Area Ricerca e Trasferimento Tecnologico Settore Dottorati, Assegni e Borse di Ricerca

#### The acceptance of thematic scholarships financed from PNRR funds entails the following obligations:

- a. for "PNRR Research" grants: spend a period of study and research abroad from a minimum of six (6) months to a maximum of twelve (12) months;
- b. for PNRR grants for Public Administration and Cultural Heritage: spend a period of study and research abroad from a minimum of six (6) months to a maximum of twelve (12) months and provide for periods of study and research in companies, research centers or Public Administrations from a minimum of six (6) months to a maximum of twelve (12) months;
- c. for grants dedicated to digital and environmental Transitions: spend a period of study and research abroad of at least six (6) months to a maximum of twelve (12) months and foresee periods of study and research in companies or research centers to a minimum of six (6) months to a maximum of twelve (12) months;
- d. for PNRR DM 117/2023 grants: spend a period of study and research abroad from a minimum of 6 months to a maximum of twelve (12) months and provide for periods of study and research in the company from a minimum of six (6) months to a maximum of twelve (18) months.

The periods of study and research abroad and in Public Administrations, company and research centers can also be non-continuous.

### ART. 14 Attendance Abroad

All Ph.D. students can carry out training periods abroad in qualified institutions. Such training or study periods abroad cannot be longer than 12 months and can be allowed in case they are foreseen by:

- a) The study program of the Ph.D. course;
- b) Upon advice of the course coordinator or board;
- c) Upon request made by the Ph.D. student.

The period of study abroad can be extended until 18 months at maximum only for the PhD in co-tutelle with foreing bodies.

All the Ph.D. students, with or without grants, are entitled to an increase in the scholarship up to a maximum of 50% for the aforementioned training periods abroad.

Before going abroad the following documents must be sent to the above mentioned Ph.D. office by the Coordinator:

- Signed authorization by the course Coordinator for training/study periods abroad of 6 months or less or
  - Board resolution allowing a period of over 6 months;

#### The authorization must include:

- the source of financial coverage for the additional sum of the scholarship;
- indication of the fund to which the additional sum of the scholarship is to be sent, if this sum is to be paid by the Department;

Upon returning to Italy, or each month, the Ph.D. Coordinator shall present the Certification about study periods abroad. and shall request the payment of the scholaship increase.



Amministrazione centrale Area Ricerca e Trasferimento Tecnologico Settore Dottorati, Assegni e Borse di Ricerca

#### ART. 15 Tuition Fees

All Ph.D. students are exempted from tuition payments. All Ph.D. students must only pay  $\in$  156,00; the Regional tax ( $\in$  140,00) and aduty stamp "marca da bollo" ( $\in$  16,00). Late payment will result in a  $\in$  52.00 fine.

# ART. 16 Rights and Duties

- 1. Ph.D. students are obliged to attend lessons and carry out all prescribed activities regularly in accordance with the programs and schedules set by the Board of Professors.
- 2. The University provides insurance coverage for the entire duration of the Ph.D. course and for activities pertaining to the course.
- 3. Compatible employment activities shall be allowed for brief periods, following authorization from the Board of Professors, after hearing the favorable opinion of the supervisor, as long as such commitments do not pose any sort of conflict with the activities required within the Ph.D. course.
- 4. Interruptions in attendance shall be allowed for:
- a) Illness or injury for periods of 30 days or more;
- b) Military or civil service;
- c) Training courses for teacher certification.

Interruption may also be agreed for substantiated serious personal reasons after having received a positive opinion of the Board of Professors. Discontinuation does cannot be longer than six months one year according to the total course length Ph.D. students benefitting of interruption period must recover the entire time with consequent test delay for the move to following year and for the awarding of title.

- 5. Maternity/paternity leave and leave for adoption or foster care may also be authorized. Maternity-leave laws and regulations as indicated in Gazzetta Ufficiale n. 247 of 23<sup>rd</sup> October, 2007 shall be applied only to scholarship holders.
- 6. A Ph.D. student's unexcused absence or non-fulfillment of obligations shall result in his/her exclusion from the course by the Board of Professors. In this case the expelled Ph.D. student shall be liable for the sum of the scholarship conferred or for tuition fees.
- 7. Ph.D. students enrolled at the University of L'Aquila may carry out limited teaching or tutoring activities within the University's Bachelor and Master-level degree courses if so established and programmed by the Board of Professors in agreement with the University Department.
- 8. Ph.D. students must preserve the confidentiality in information, knowings and materials that the organizations will make available for the study and research activities. They must not disclose beyond subject different by the ones that gave to them, in accordance with the Ph.D Course Regulation of this University.



Amministrazione centrale Area Ricerca e Trasferimento Tecnologico Settore Dottorati, Assegni e Borse di Ricerca

#### ART. 17 Graduation

Students can write their Ph.D. thesis in Italian or in English, an abstract in English must also be provided. Students wishing to write their thesis in a language different form Italian or English must receive authorization from the Board of Professors.

The evaluation committee for Ph.D. thesis discussion will be appointed according to the Ph.D. Regulations of the University.

A Doctoral Degree title (Dott. Ric. or Ph.D.) will be awarded following a positive assessment of the Ph.D. thesis, taking into account the achieved results.

# ART. 18 Head of the Competition Procedure

According to art. 5 of law 07/08/1990, n. 241, the Head of the Settore Dottorati, Assegni e Borse di ricerca of the University of L'Aquila (Piazza Santa Margherita, 2 – Palazzo Camponeschi - L'Aquila) shall be responsible for the competition procedure.

### ART. 19 Legal Reference

For all other matters not foreseen or included in this announcement we shall refer to Law n. 210 of 03/07/98, Law n. 240 of 30/12/2010, Ministerial Decree 226/2021 and to the "Regolamento dei corsi di Dottorato di Ricerca" (Ph.D. regulations) of this University.

This announcement is available at: <a href="https://www.univaq.it/section.php?id=2207&lang-s=en">https://www.univaq.it/section.php?id=2207&lang-s=en</a>

Further information may be requested through HELP POINT ONLINE, accessible from the website <a href="https://help.univaq.it/">https://help.univaq.it/</a>

L'Aquila 19/07/2023

The Rector of the University of L'Aquila Prof. Edoardo Alesse

Ph.D. Course in CIVIL, CONSTRUCTION-ARCHITECTURAL AND ENVIRONMENTAL ENGINEERING	
Ordinary places	18
of which	
with grant	15
without financial support	3
Grant/Fellowship Funding source	<ul> <li>4 grants – University of L'Aquila</li> <li>4 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "Doctorates for the Public Administration" – CUP E11I23000160001</li> <li>2 grants funded pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "PNRR Research" – CUP E11I23000090001</li> <li>1 grant funded pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "Cultural Heritage" - CUP E11I23000070001</li> <li>3 grants co-financed pursuant to Ministerial Decree 117/2023 • Mission 4, Component 2, Investment 3.3. of the PNRR - "Innovative doctorates that respond to the innovation needs of companies" – CUP E11I23000200001</li> <li>1 grant funded by the National Institute of Geophysics and Volcanology (INGV)</li> </ul>
Grants subjects 118/2023 M4C1 – Inv. 4.1 "PhD for Public Administration"	4 grants aimed at carrying out research concerning:  "Guidelines for the definition of information system needed to the development of dam emergency plans", managed whit Agenzia Regionale di Protezione Civile. Referring professor: M. Di Risio  Abstract:  Dam emergency plans are the aimed to manage emergencies related to hydrological-hydraulic processes in the presence of artificial reservoirs, to operations at outlet works and dam break. The research project aims to define general guidelines that can harmonize and make the set of information from various stakeholders (e.g., reservoir managers) coherent and usable. This procedure is based on the definition of procedures, even simplified ones, that allow for a reliable estimation of the hazard levels associated with dams.  "Territorial dynamics and local planning within the context of avalanche risk", managed whit Agenzia Regionale di Protezione Civile. Referring professor: A. Marucci  Abstract:  The research aims to intervene in the updating of information and in the landscape of data analysis to support planning tools. The activities of updating and completing the Avalanche Registries and the Probable Avalanche Location Maps (CLPV), as well as initiatives aimed at transferring cartographic data to computer media, are to be considered a priority for the Administrations of the Regions and Autonomous Provinces. In these studies, assessments of the different degree of exposure to avalanche danger must be carried out with reference to the frequency and intensity of expected avalanche events. The implementation of in-depth studies is deemed necessary in all situations where a direct or indirect interference between avalanche phenomena and existing or planned urban settlements can be identified. Furthermore, the research aims to innovate the techniques and procedures for analyzing territorial contexts at risk of avalanches, also through the use of advanced spatial analysis techniques and innovative monitoring technologies.  "Enhancement of the effectiveness, efficien



	dynamics. The installation of new instrumentation as part of the restructuring, adaptation, and expansion of the National Wave Monitoring Network represents a unique opportunity for the subsequent validation of the analysis techniques. These techniques will provide valuable support for optimizing offshore energy islands, in line with the provisions of the National Recovery and Resilience Plan. The developed algorithms will be integrated into a digital platform serving the Public Administration, which will actively participate in activities aimed at enhancing the effectiveness, efficiency, and cost-effectiveness of its public function.  • "Innovative tools, methods and technologies to ensure the ecologically functional connectivity of the territory towards a new National ecological network.", managed whit Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA). Referring professor: A. Marucci  Abstract:  The research topic focuses on the complex relationships between ecologically functional connections and planning tools, with particular attention to the tools, methodologies, and technological resources supporting the National Biodiversity Strategy 2030.
	2 grants aimed at carrying out research concerning:
	Circular economy in the building sector. Steel components between production and post-production. Referring professor: D. Di Donato
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PNRR Research"	Abstract The Ph.D. research is focused on the draft of methods and tools aimed at the reuse of steel components deriving from the demolition of buildings and, in the case of new buildings, on the identification of good practices and guidelines useful for informing an efficient design, able to integrate both the disassembly and the reassembly of the construction components. To this end, the Ph.D. studies will have to pursue the following specific objectives: definition of the procedures for the certification of reused steel components; definition of control tools for the integral design process (from the first design phase passing through those of realization and deconstruction to finally include that of reuse or recovering) capable of tracing the LCA of steel components; reduction of steel recycling processes in favor of post-production ones with a view to monitoring and assessing environmental impacts; patenting of the reuse/recovery process; re-Certification of steel components.
	Analytical-numerical models for the dynamic behaviour of timber buildings. Referring professors: M. Fragiacomo and F. D'Annibale
	Abstract: The research will focus on the dynamic behaviour of timber buildings, as resulting from the impact of wind or earthquake. The connections between timber structural components will be characterized by taking into account their flexibility and non-linear mechanical behaviour. Advanced numerical models of the entire building will be implemented in widespread software packages such as ABAQUS and OPENSEES. Simplified analytical models will also be sought.
	1 grant aimed at carrying out research concerning:
	<ul> <li>Iconographic and photographic documentation of companies and professionals in the field of design and construction of architectural,</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "Cultural Heritage"	engineering and restoration works. Referring professor: S. Ciranna  Abstract:
	The research project, in line with the National Strategic Framework for Research and Innovation and the objectives of the National Recovery and Resilience Plan (PNRR), aims to promote innovation, enhance skills, and disseminate technologies. Its main objective is to identify, study, systematize, and make accessible for study the significant iconographic, photographic, and documentary documentation of architectural, engineering, and restoration projects carried out by professionals and companies. These projects have focused on the architectural, urban, and landscape heritage, particularly in central Italy and regions affected by destructive seismic events in the last two centuries.
	The research activities include: Surveying documentary, photographic, and iconographic evidence preserved in professional and company archives, public and

private archives of institutions, organizations, administrations, collectors, and museums working on architectural, urban, and landscape heritage in central Italy; Cataloging the identified documents; Scanning/digitizing and indexing the selected documents; Creating a expandable database intended for public entities and accredited researchers; Transferring the indexing and documents to the database organized according to European standards and criteria; Participating in conferences, debates, and symposiums by presenting reports and publishing texts on the results of the research. These publications will consist of articles, essays in volumes, and monographs focusing on the development/history of companies and professionals in the sector, specific construction sites of particular relevance at the local, national, and international scale, as well as elements/solutions of particular interest in the development of techniques, construction site organization, and the use of methodologies aimed at energy efficiency, sustainability, and respect for the environment (historical, urban, technological, etc.). Overall, this research project aims to gather, preserve, and make accessible valuable documentation related to architectural and engineering projects, promoting knowledge sharing and contributing to the understanding and preservation of the architectural and cultural heritage of the central Italian regions affected by seismic events.

3 grants aimed at carrying out research concerning:

• Statistical and dynamic characterization of avalanches in the Central Apennines for territorial planning. Referring professors: M. Di Risio and A. Marucci

#### Abstract:

The topic focuses on avalanche risk, specifically hazard and vulnerability aspects. The objectives of the research activity primarily include: Statistical characterization of snow cover to provide the technical and scientific community with a tool for defining design loads and quantitative assessment of hazard; numerical reproduction of the avalanche phenomenon; utilization of the obtained information in the context of territorial planning in mountainous areas. These research activities will find practical application in the Central Apennines basin.

 Development of parametric models and operational procedures for the optimal management of Public Transport Systems (PTS) in the context of technological, energy and environmental transition.
 Referring professor: G. D'Ovidio

#### Abstract:

The proposed research topic focuses on the optimal management of local public passenger transport systems in relation to technological, energy, and environmental transition. The objective is to optimize the Total Cost of Ownership (TCO), increase the competitiveness of public transport systems compared to private transportation (modal shift), and reduce system emissions in line with the goals outlined in the European Green Deal (Fit For 55) to ensure decarbonization of the transportation sector. The research aims to achieve a high level of innovation in the management of public transport services by developing effective tools that can be utilized by public transport companies to optimize technical, economic, and environmental aspects. The proposed innovation specifically involves the development of parametric numerical models to support planning and management activities for public transport services. These models will consider various operational variables and boundary conditions, enabling optimization of service delivery by public transport companies.

 Analysis of the programming, development and management methods of infrastructure, technological systems and facilities in Public Transport Systems with a focus on technological, energy and environmental transition.

Referring professor: G. D'Ovidio

#### Abstract:

The most ambitious and impactful environmental policies aimed at transitioning to a sustainable transportation and mobility system promote the electrification of vehicles along with the use of "green" energy carriers produced from renewable energy sources. This is seen as a fundamental lever in the decarbonization process and combating climate change. The prospects for Battery Electric Vehicles (BEVs) remain highly positive due to rapid innovation advancements. Fast charging and smart charging are technological elements necessary to promote the use of electric vehicles, even in the public transport sector. Consequently, the paradigms of infrastructure configurations and management of technological systems supporting vehicles are changing. In this regard, the research topic focuses on the analysis,

Grants subjects DM 117/2023 M4C2 – Inv. 3.3 "Innovative doctorates that respond to the innovation needs of companies"

	planning, and optimal management of infrastructure, facilities, and technological systems related to the supply, shelter, and maintenance of fleets of vehicles in local public transport. The aim is to address the challenges and opportunities arising from the technological, energy, and environmental transition, specifically in the context of optimizing the support systems for the transition to electric vehicles in public transportation.
INGV	• "Seismic microzonation, site-specific seismic effects considering stratigraphy and topography, for studying stable zones susceptible to local amplification and coseismic instability". Reffering Professors: M. Tallini and P. Monaco  Abstract:  The proposed research topics include the study of earthquakes, the propagation of seismic waves, seismic monitoring at the scale of Near Fault Observatories, the effects of earthquakes on the territory, and the study of active and capable faults using paleoseismological techniques. These studies will also be approached from an applied perspective, considering seismic hazard assessment, which involves evaluating the expected shaking at a site, seismic microzonation at first and third levels for territorial planning, and local seismic response at the site scale for the design and seismic retrofitting of civil structures. Within the scope of seismic microzonation, the seismic effects of stratigraphic and topographic site conditions will be considered to study stable zones susceptible to local amplification, as well as coseismic instabilities such as surface faulting, liquefaction, landslides, cavity collapses, and earthquake-induced differential settlements. The activities will involve the acquisition and processing of seismic, geophysical, and geological data, which will be stored in territorial databases, synthesized through thematic geological mapping, and analyzed using big data analysis techniques. The data will be interpreted based on conceptual models and used for numerical simulations aimed at studying the seismic phenomenon and its effects on the territory, as well as for the assessment of seismic hazard scenarios from an applied perspective. Another proposed research topic focuses on studying the effects of earthquakes on hydrological variables commonly observed and reported in the literature. Examples include changes in spring discharge, their formation and/or disappearance, variations in groundwater levels, and changes in the chemical characteristics of water.
Duration	3 years
Curricula	a) Civil and Environmental Engineering b) Construction-Architectural Engineering
University Department Responsible for the Ph.D. Course	Department of Civil, Construction-Architectural and Environmental Engineering
Ph.D. Course Website	https://diceaa.univaq.it/index.php?id=phdiceaa
Ph.D. Course Coordinator	Prof. Marcello Di Risio marcello.dirisio@univag.it
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.
Admission Procedure	Assessment of qualifications/certifications held by the candidate and oral exams
Examination topics	The subjects will refer to those characteristics of the training courses typical of civil, construction-architecture and environmental engineering.  Curriculum a): Civil and Environmental Engineering:



	Engineering Geology Hydraulic Structures, Maritime Engineering and Hydrology Transportation Surveying and Mapping Geotechnics Structural mechanics Structural engineering  Curriculum b): Construction-Architectural Engineering: Architectural Engineering Building Production Architectural and urban design Representation of Architecture History of Architecture Conservation and Restoration of Architecture Urban and regional planning Urban Design and Landscape
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call. A declaration of the time required for obtaining the qualifications is also required.</li> <li>A summary of their Master Degree thesis, max. 10 pages of which at least three written and the rest in graph/table format, if the thesis is in project format.</li> <li>A description of the research project the candidate proposes to carry out within the Ph.D. course he/she is applying for in no more than 3000 words.</li> <li>Publications.</li> <li>Additional qualifications deemed appropriate for admission.</li> </ol>
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam  Admission The candidate may sit the exams in ITALIAN or ENGLISH
Exam Schedules	Qualification assessment: 11 <sup>th</sup> September 2023 – at 2:30 p.m Department of Civil, Construction-Architectural and Environmental Engineering – Monteluco di Roio – L'Aquila  Oral exam: 14 <sup>th</sup> September, 2023 at 09:30 a.m Department of Civil, Construction-Architectural and Environmental Engineering – Monteluco di Roio – L'Aquila
Assessment Criteria	The assessment procedure consists in two phases: qualification evaluation and an oral exam which includes English language skills assessment. The Candidate's score will be indicated out of a total of 100 points as follows:  1. Qualification assessment: Maximum 40 points



	The Commission shall assess the qualifications indicated by the candidate in his/her application — up to a maximum of 40 points, attributed as follows:  a. Degree mark or evaluation of the marks obtained in the candidates' academic career (for candidates not graduated yet): Up to 16 points attributed as follows:  • In case of a single-cycle master's degree already achieved: up to 12 points for the degree mark (points are allocated as follow: Until 99/110 = 0 points; 100/110 = 1 point; 101/110 = 2 points, this way until the maximum, 110/110 = 11 points; 110 cum laude is 12 points).  • In case of a single-cycle master's degree not yet awarded: up to 12 points for the weighted average of the marks obtained for passing the exams (nongraduates: points 0 for 99 and one point from 99 onwards).  • In the case of a master's degree already obtained: up to 12 points awarded on the basis of the weighted average of the first level degree mark (weight 3) and second level degree (weight 2).  • In the case of a master's degree not awarded: up to 12 points awarded on the basis of the weighted average of the first level grade (weight 3) and the weighted average of the marks obtained for passing the master's degree exams (weight 2).  • For all cases: up to 4 points for a career assessed on the time required for graduation (eg: 4 points for those who graduate in five years, 3 for those who graduate in six, etc. up to 0 points).  b. Thesis, research projects and publications: maximum 20 points as follows:  • Thesis summary: max. 3 points  • Research Project: max. 14 points  • Publications: max.3 points  c. For additional qualifications indicated: max. 4 points.
	the qualifications indicated by the candidate, including his/her research project and on topics of general interest pertaining to the Ph.D. course applied for. Assessment of the candidate's knowledge and understanding of a English language is part of the oral exam.
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website: <a href="http://diceaa.univaq.it/">http://diceaa.univaq.it/</a>
Additional Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected within specific international mobility programs: n.0  Positions reserved for scholarship holders from foreign countries: n. 0  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 0



Ph.D. Course in INFORMATION AND COMMUNICATION TECHNOLOGIES – ICT	
Ordinary places	22
of which	
with full grant	20
without financial support	2
Grant/Fellowship Funding source	<ul> <li>6 grants - University of L'Aquila</li> <li>4 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "Doctorates for the Public Administration" - CUP E11I23000170001</li> <li>3 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "PNRR Research" - CUP E11I23000100001</li> <li>1 grant financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 3.4. of the PNRR - "Digital and environmental transitions" - CUP E11I23000040001</li> <li>5 grants financed pursuant to Ministerial Decree 117/2023 • Mission 4, Component 2, Investment 3.3. of the PNRR - "Innovative doctorates that respond to the innovation needs of companies" - CUP E11I23000230008</li> <li>1 grant financed by CINECA, under Spoke 1 - Future HPC - of the research programme CN000013 National Centre for HPC, Big Data and Quantum Computing - NextGeneratioEU - National Recovery and Resilience Plan, M4C2 - Inv. 1.4 - CUP D56G22000380006</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PhD for Public Administration"	<ul> <li>4 grants aimed at carrying out research concerning:</li> <li>"Regional digital twin-civil protection", managed with Regione Abruzzo, Agenzia Regionale di Protezione Civile (APC). Referring Professor: A. Di Marco</li> <li>"Regional digital twin-improving geographical information system", managed with USRA – Ufficio Speciale per la Ricostruzione dell'Aquila - Referring Professor: A. Di Marco</li> <li>"Data collection and analysis system from a video surveillance system of a network of municipalities of the 2009 earthquake crater" managed with USRC – "Ufficio Speciale per la Ricostruzione dei Comuni del Cratere" - Referring Professor: A. Di Marco</li> <li>"Safe and smart villages: technological and digital innovation of networks and services for citizens and economic operators for the intelligent management of resources and the safe and sustainable development of territorial capital", managed with USRC – "Ufficio Speciale per la Ricostruzione dei Comuni del Cratere" - Referring Professor: F. Graziosi</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PNRR Research"	<ul> <li>3 grants aimed at carrying out research concerning:</li> <li>"Study of architectures and protocols for vehicular networks in intelligent and cooperative transport systems (C-ITS)", managed with Consorzio Università Industria Radiolabs - Roma. Referring Professor: P. Di Marco</li> <li>"Investigating the impact of software refactoring on performance and energy" - Referring Professor: D. Di Pompeo</li> <li>"Computational methods of analysis and synthesis of the auditory scene to support immersive and connected extended reality services". Referring Professor: F. Graziosi</li> </ul>
Grants subjects DM 118/2023 • M4, C1, Inv. 3.4. "Digital and environmental transitions"	1 grant aimed at carrying out research concerning: "Generative AI metaverse for the cultural heritage" - Referring Professor: H. Muccini

	5 grants aimed at carrying out research concerning:
Grants subjects DM 117/2023 M4C2  – Inv. 3.3 "Innovative doctorates that respond to the innovation needs of companies"	<ul> <li>"Multi-user and multi-agent three-dimensional immersive environments", managed with Armundia Group S.r.l L'Aquila - Referring Professor: G. De Gasperis</li> <li>"Integrated geospatial system for solar energy support", managed with Rainbow Lab S.r.l Roma - Referring Professor: V. Cortellessa</li> <li>"Architecture of a high throughput, low observability avionics datalink", managed with Leonardo S.p.A Roma - Referring Professor: F. Santucci</li> <li>"Reliability and fault tolerance of electric propulsion systems for industrial vehicles", managed with TEKNE S.r.l Ortona (CH) - Referring Professor: C. Buccella</li> <li>"Development of new duty cycle modeling and optimization techniques in the context of semiconductor device manufacturing systems", managed with Lfoundry S.r.l Avezzano - Referring Professor: A. D'Innocenzo</li> </ul>
CINECA	"Development of modern strategies for cloud and high performance computing integration", managed whit CINECA. Referring Professor: G. Di Stefano
Duration	3 years
Curricula	<ul> <li>a) System Engineering, telecommunications and HW/SW Platforms</li> <li>b) Emerging computing models: algorithms, software architectures and intelligent systems</li> </ul>
University Department Responsible for the Ph.D. Course	Department of Information Engineering, Computer Science and Mathematics
Ph.D. Course Website	http://phdict.disim.univaq.it/
Ph.D. Course Coordinator	Prof. Vittorio Cortellessa vittorio.cortellessa@univaq.it
	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.
Admission Pre-requisites	Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.
Admission Procedure	Qualification assessment and oral exam.  Candidates take the oral exam via web (Skype and other). In the application form, the candidate must indicate a valid contact address. The testing commission will certify the identity of the candidate, to this end the candidate shall be required to show a valid identification document with recent photo, during the oral exam. Applicants may sit the oral exam in English.
Examination topics	In the oral exam, the Committee evaluates the following aspects: candidate's qualifications and his/her base knowledge in the ICT domain, and in particular, in the themes that characterize the Ph.D. program in ICT; his/her motivation, scientific interests and research aptitude.
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.



Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>The candidate must indicate the name of one or two professors with their e-mail address. The referee will receive an e-mail with the instruction to write the recommendation letter directly on line.</li> <li>Summary, max. 2 pages (font at least 10), of the candidate's Degree thesis.</li> <li>Summary, max. 2 pages (font size at least 10), of the research project the candidate intends on carrying out if he/she is admitted into the Ph.D. Course.</li> <li>Research project.</li> <li>Any publications and research projects any which the candidate participated, if considered useful for the evaluation.</li> <li>Other qualifications deemed appropriate for evaluation.</li> </ol>
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam  Admission The candidate may sit the exam in ITALIAN or ENGLISH
Exam schedule	Qualification assessment: 4 <sup>th</sup> September, 2023 at 03:00 p.m.  Oral Exam: 11 <sup>th</sup> September, 2023 at 09:30 a.m. Candidates take the oral exam via web
Assessment Criteria	The assessment procedure consists in two phases: qualification assessment and an oral exam. Scores are indicated out of a total of 100 points, assigned as follows:  1. Qualification assessment: Max. 50/100 points attributed through assessment of the candidate's CV, letters of recommendation, publications and other qualifications. The minimum score required for admission to sit the oral exam is 30/100.  2. Oral exam: Max. 50/100, the oral exam consists in an in depth discussion and presentation of the candidate's Degree thesis and research project he/she intends on carrying out within the Ph.D. course applied for. The aim is to evaluate the candidate's aptitude and motivation for research. The exam includes assessment of the candidate's English language skills. Applicants may sit the oral exam in English.
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website: <a href="http://www.disim.univaq.it">http://www.disim.univaq.it</a> .
Additional Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected within specific international mobility programs: n. 0  Positions reserved for scholarship holders from foreign countries: n. 0  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 0



Ph.D. Course in INDUSTRIAL AND INFORMATION ENGINEERING AND ECONOMICS	
Ordinary places	34
of which	
with grant	26
without financial support	8
Grant/Fellowship Funding source	<ul> <li>9 grants – University of L'Aquila</li> <li>1 grant financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 3.4. of the PNRR – "Digital and environmental transitions" – CUP E11I23000550001</li> <li>9 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "Doctorates for the Public Administration" - CUP E11I23000180001</li> <li>2 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR – "PNRR Research" – CUP E11I23000110001</li> <li>3 grants financed pursuant to Ministerial Decree 117/2023 • Mission 4, Component 2, Investment 3.3. of the PNRR - "Innovative doctorates that respond to the innovation needs of companies" – CUP E11I23000220008</li> <li>1 grant financed by HUAWEI TECHNOLOGIES Italia S.r.l</li> <li>1 grant financed by Swiss National Science Foundation (SNSF)</li> </ul>
Grant subject DM 118/2023 M4C1 – Inv. 3.4 "Digital and environmental transitions"	<ul> <li>1 grant aimed at carrying out research concerning:</li> <li>"Advanced computer-aided-design modeling techniques for complex electrical systems" – Referring Professor: K. Gallucci</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PhD for Public Administration"	<ul> <li>9 grant aimed at carrying out research concerning:</li> <li>n. 1 "Post-earthquake public reconstruction: Dysfunctions and prospects" managed with Comune di Rieti – Reffering Professor: W. Giulietti</li> <li>n. 1 "Sustainable mobility in the National Park of Abruzzo, Lazio and Molise: protection of flora and fauna, enhancement of the Park area and residents' needs", managed with Parco Nazionale D'Abruzzo- Reffering Professor: F. Caporale</li> <li>n. 2 "The protection of the right to health in relations State and Regions, between loyal cooperation, territorial peculiarities and unitary interests", managed with Azienda Sanitaria Locale Avezzano, Sulmona, L'Aquila - Reffering Professor: F. Politi</li> <li>n. 2 "The constitutional dimension of the provinces and the role in the implementation of the PNRR and in protecting and developing the territories", managed with Provincia dell'Aquila - Reffering Professor: F. Politi</li> <li>n. 1 "The role of the municipal authority in the territory development", managed with Comune di Avezzano - Reffering Professor: F. Politi</li> <li>n. 1 "Legal implications of structuring a video surveillance security system for a network of municipalities of the 2009 earthquake crater", managed with USRC- Ufficio Speciale per la Ricostruzione dei Comuni del Cratere - Reffering Professor: F. Caroccia</li> <li>n. 1 "Market competition in the pharmaceutical sector: the case of municipal pharmacies", managed with A.F.M Reffering Professor: F. Caroccia</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PNRR Research"	<ul> <li>2 grants aimed at carrying out research concerning:</li> <li>Measurement and data processing techniques to improve quality in the "luxury automotive", managed with Automobili LAMBORGHINI S.p.A Reffering Professor: G. D'Emilia</li> <li>"Advanced Computational Electromagnetic Modeling Techniques for Nanophotonic and Metamaterials Design" – Reffering Professor: G. Antonini</li> </ul>



	3 grants aimed at carrying out research concerning:
Grants subjects DM 117/2023 M4C2 – Inv. 3.3 "Innovative doctorates that respond to the innovation needs of companies"	<ul> <li>"Fluidized bed gasification process to valorise sewage sludge and waste materials through the production of synthesis gas for energy purposes and for the recovery of secondary materials" managed whit ALMA C.I.S. S.r.l Pescara – Reffering Professor: K. Gallucci</li> <li>"Development of innovative technologies for the production of miniaturized circuit boards", managed with ELCO PCB S.p.A. – Reffering Professor: P. Di Stefano</li> <li>"Circular economy in the recovery of critical raw materials (CRM) from industrial waste and the automotive sector with particular attention to lithium batteries and the enhancement of graphite", managed with ORIM S.p.A Macerata – Reffering Professor: F. Vegliò</li> </ul>
HUAWEI TECHNOLOGIES Italia	1 grant aimed at carrying out research concerning:
S.r.l.	"Simulation and statistical analysis methods for signal and power supply integrity in high bit-rate electronic circuits" - Reffering Professor: A. Orlandi
	1 grant aimed at carrying out research concerning:
Swiss National Science Foundation (SNSF)	"Multi-objective Optimization of Wide-band Gap-based Power Electronic System" - Reffering Professor: G. Antonini
Duration	3 years
Curricula	a) Chemical and Materials Engineering b) Electrical Engineering, Electronics and Information c) Mechanical, Energy and Management Engineering d) Legal and Business Sciences
University Department Responsible for the Ph.D. Course	Department of Industrial and Information Engineering and Economics
Ph.D. Course Website	https://diiie.univaq.it/index.php?id=2613
Ph.D. Course Coordinator	Prof.ssa Katia GALLUCCI
	katia.gallucci@univaq.it
	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.
Admission Pre-requisites	Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.
Admission Procedure	Qualification assessment and oral exam.
Examination topics	The topics which will be considered for the examination are those typical of the Chemical and Materials Engineering, Electrical and Electronics Engineering, Information Engineering, Mechanical, Energy and Management Engineering and those of the legal, business and economical sciences according to all the curricula of the Ph.D. Themes will be specific as well as general, making reference to the most important and relevant aspects of the cited engineering courses and legal and economical ones as well as to aspects which could be considered multi-disciplinar. Themes concerning common methodologies related to research and to the relationships to social and economical aspects could be considered as well.
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.



Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>Research project (font 11; 6000 words, spaces included).</li> <li>Scientific publications and/or other qualifications deemed suitable for assessment.</li> <li>Summary of the candidate's Degree thesis.</li> </ol>
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam  Admission The candidate may sit the exams in ITALIAN or ENGLISH
Exam Schedules	Qualification assessment: 5th September, 2023 at 09:00 a.m.  Oral exam: 8th September, 2023 at 09:00 a.m. at Room B05, Department of Industrial and Information Engineering and Economics – Roio – L'Aquila
Assessment Criteria	The examination procedure consists in two phases: qualifications evaluated and an and oral exam. The candidate's score shall be expressed out of a total of 100 points attributed as follows:  1. Qualification evaluation: Maximum 40 points distributed as follows:  • Up to 20 points for Degree mark or academic career for those who haven't yet obtained their Master-level Degree  • Up to 10 points for research project  • Up to 5 points for publications  • Up to 5 points for other qualifications.  The minimum score required for admission to sit the oral exam is 24/40  2. Oral exam: Max. 60 points  The exam includes assessment of the candidate's English language skills.  The results of the oral exam will be published on the Department.  Applicants with foreign Degrees may be admitted to held the oral exam online.  Other candidates can ask to do the oral exam online by submitting justified documents, and the Commission Board will consider each request.
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website <a href="http://diiie.univaq.it/">http://diiie.univaq.it/</a> .
Additional Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected within specific international mobility programs: n.0  Positions reserved for scholarship holders from foreign countries: n.0  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n.0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n.0



#### ATTACHMENT EVALUATION CRITERIA

The Assessment Criteria for the candidates' qualification evaluation will be assigned as follows:

a. up to 20 points for Degree mark or academic career for those who haven't yet obtained their Master-level Degree will be assigned as follows:

#### a1. Degree mark:

- 20 points for a degree mark equal to 110/110 cum laude;
- 18 points for a degree mark equal to 110/110;
- 16 points for a degree mark included between 105/110 and 109/110;
- 14 points for a degree mark included between 100/110 and 104/110;
- 12 points for a degree mark included between 95/110 and 99/110;
- 10 points for a degree mark included between 90/110 and 94/110;
- 8 points for a degree mark included between 85/110 and 89/110;
- 6 points for a degree mark included lower than 85/100.

If it is not possible to estimate a degree mark, the Commission will assign 6 points.

If the degree mark is based on a different rating scale (e.g. 100 or other) the Commission will convert the mark in a proportional way.

#### a2. Academic career for those who haven't yet obtained their Master-level Degree:

- 20 points for an average mark assessed with the credits acquired for each exam between 28.5 and 30 cum laude:
- 18 points for an average mark assessed with the credits acquired for each exam between 27.5 and 28.49;
- 16 points for an average mark assessed with the credits acquired for each exam between 26.5 and 27.49;
- 14 points for an average mark assessed with the credits acquired for each exam between 25.5 and 26.49;
- 12 points for an average mark assessed with the credits acquired for each exam between 24.5 and 25.49;
- 6 points for an average mark assessed with the credits acquired for each exam lower than 24.49.

If it is not possible to estimate an average mark assessed with the credits acquired for each exam, the Commission will assign 6 points.

- b. Up to 10 points for research project will be assigned based on the following criteria: the Commission will evaluate the quality of the project, the originality, the innovativeness, the methodological accuracy, the scientific relevance and the consistency with the Ph.D. themes
- c. Up to 5 points for publications will be assigned based on the following criteria: the Commission will assign from 0 to 3 points for each publication based on the quality of the work, the editorial office, the methodological accuracy and the originality
- d. **Up to 5 points for other qualifications** will be assigned based on the following criteria: the Commission will assign up to 2 points for each document coherent with the themes of the Ph.D. course.

The minimum mark for being admitted to oral exam is 24/40.



Ph.D. Course in LITERATURES, ARTS, MEDIA: THE TRANSCODIFICATION	
Ordinary Places	10
Of which	
with full grant	8
Without financial support	2
Grant/Fellowship Funding source	<ul> <li>5 grants - University of L'Aquila</li> <li>3 grants funded pursuant to Ministerial Decree 118/2023 • Mission 4,</li> <li>Component 1, Investment 4.1. of the PNRR - "Cultural Heritage" - CUP E11I23000080001</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "Cultural Heritage"	<ul> <li>3 grants aimed at carrying out research concerning:</li> <li>n. 2 "Fragment and system in art history: from Naples to Florence along the Via degli Abruzzi (13th-16th centuries)", in collaboration with the Museo Nazionale d'Abruzzo National Museum (MuNDA) - Project Leader: Prof. C. Pasqualetti</li> <li>n. 1 "Sources and Collections in art History: from Naples to Florence along the Via degli Abruzzi", in collaboration with the Regional Library "Salvatore Tommasi" - L'Aquila - Project Leader: Prof. L. Pezzuto</li> </ul>
Duration	3 anni
Curricula	a) Literary studies b) Arts, performance, media
University Department Responsible for the Ph.DCourse	Department of Human Studies
Ph.D Course Website	http://scienzeumane.univag.it/index.php?id=1691
Ph.D Course Coordinator	Prof. Massimo Fusillo massimo.fusillo@univaq.it
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.
Admission Procedure	Assessment of qualifications/certifications held by the candidate, written and oral exams.
Examination topics	The subjects which the exam will be focused on are: Comparative Literature and Literature Theory, and the various specialist areas included in the doctorate, for both curricula. In addition to that:  Curriculum a) History of literary genres  Curriculum b) Visual arts, Performance, cinema and media
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> </ol>



	<ol> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>A summary of their Master Degree thesis, max. 2 pages</li> <li>Research project: a report illustrating a possible research project the candidate wishes to carry out within the curriculum applied for.</li> <li>Any publications and additional qualifications deemed appropriate for admission.</li> </ol>
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam  Admission The candidate may sit exams in ITALIAN or ENGLISH
Exam schedule	Written exam: 11 <sup>th</sup> September, 2023 at 09:30 a.m. at the Department of Human Studies – Viale Nizza – L'Aquila  Qualification assessment: 12 <sup>th</sup> September, 2023 at 04:00 p.m. (only for candidates who have passed the written test)  Oral exam: 13 <sup>th</sup> September, 2023 at 09:00 a.m. at the Department of Human Studies – Viale Nizza – L'Aquila
Assessment Criteria	<ol> <li>The assessment procedure consists in three phases: qualification evaluation, written exam and an oral exam.</li> <li>The Candidate's score will be indicated out of a total of 100 points as follows:</li> <li>Written exam: the maximum score is 35 points. In order to pass the exam the minimum score required is 20 points. The written test is aimed at assessing the basic knowledge of the chosen curriculum and the methodological awareness.</li> <li>Qualification assessment: the maximum score is 30 points, awarded through the evaluation         <ul> <li>a. curriculum: 5 points</li> <li>b. publications: 7 points</li> <li>c. project: 15 points</li> <li>d. other qualifications: 3 points</li> </ul> </li> <li>Oral exam: the maximum score is 35 points. In order to pass the exam the minimum score required is 20 points. The oral exam is aimed at assessing the candidate's scientific research aptitude, his research experiences and his general preparation on topics related to the curriculum chosen by the candidate and above all on the research project presented. During the oral exam the degree of knowledge and understanding of scientific English will also be verified.</li> </ol>
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website <a href="https://scienzeumane.univaq.it">https://scienzeumane.univaq.it</a> .
Additional Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected in the frame of specific international mobility programs: n. 0  Positions reserved for scholarship holders from foreign countries: n. 0  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 0



Ph.D. Course in MATHEMATICS AND MODELING	
Ordinary places	13
Of which	
with full grant	11
without financial support	2
Grant/Fellowship Funding source	<ul> <li>6 grants - University of L'Aquila</li> <li>2 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 3.4. of the PNRR – "Digital and environmental transitions" – CUP E11I23000060001</li> <li>3 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR – "PNRR Research" - CUP E11I23000120001</li> </ul>
Grants subjects DM 118/2023 M4C1 – Inv. 3.4 "Digital and environmental transitions"	2 grants aimed at carrying out research concerning:  • "Development of mathematical nonstationary signal analysis methods for euclidean and non euclidean spaces and their application to theimprovement of circular economy (magieco)" - Referring Professor: A. Cicone  • "Variational models for the study and synthesis of complex innovative metamaterials" - Referring Professor: I. Giorgio
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 " PNRR Research"	<ul> <li>3 grants aimed at carrying out research concerning:</li> <li>"Non-local deterministic modelling for the diffusion of epidemics" - Referring Professor: M. Di Francesco</li> <li>"Quantum computing in the study of systems in topologically non-trivial phases" - Referring Professors: L. Guidoni and S. Paganelli</li> <li>"Expansion methods in statistical mechanics and their application in theoretical computer science" - Docente referente: T. Kuna</li> </ul>
Duration	3 years
Curricula	///
University Department Responsible for the Ph.D. Course	Department of Engineering, Computer Science and Mathematics
Ph.D. Course Website	http://people.disim.univag.it/~dottorato_mate_mode
Ph.D. Course Coordinator	Prof. Davide GABRIELLI davide.gabrielli@univaq.it
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.
Admission Procedure	Qualification evaluation and oral exam. Foreign applicants can take the oral exam in English.  Applicants may take the oral exam via web. In this case the candidate must specify the means they wish to use for their interview indicating a valid contact address. This request must be authorized by the testing commission once the identity of the candidate has been certified, to this end the candidate shall be required to show a valid identification document at the moment of the interview.
Examination topics	Presentation of the thesis and research activity.



	Discussion and questions on topics of basic mathematical culture. Specific questions concerning the topic of research for candidates applying for thematic grants
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>The candidate must indicate the name of two professors with their e-mail address. The referee will receive an e-mail with the instruction to write the recommendation letter directly on line.</li> <li>Summary, max. 2 pages, of the candidate's Degree thesis.</li> <li>Any publications and additional qualifications deemed appropriate for assessment.</li> </ol>
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam.  Admission The candidate may sit exams in ENGLISH
Exam schedule	Qualification assessment: 1st September, 2023 at 9:00 a.m.  Oral Exam: 8th September, 2023 at 09:00 a.m. at the Department of Information Engineering, Computer Science and Mathematics – Classroom: A0.4 - building "Alan Turing" Coppito – L'Aquila
Assessment Criteria	<ol> <li>The examination procedure consists in two phases: qualification assessment and an oral exam. The candidate's scores will be indicated out of a total of 100 points attributed as follows:</li> <li>Qualification assessment: Assessment of the candidate's CV, letters of recommendation, publications and other qualifications. The minimum score required for admission to sit the oral exam is 30, the maximum score is 50 points.</li> <li>Oral exam: The oral exam consists in the candidate's presentation of his/her Degree thesis and research activity. The aim is to evaluate the candidate's aptitude and motivation for research. The test also includes assessment of the candidate's English language skills.</li> <li>The foreign candidates may sit the oral exam in English. The minimum score needed to pass is 30 over a max of 50 points for the oral exam.</li> </ol>
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on PhD website: <a href="http://people.disim.univaq.it/~dottorato_mate_mode/">http://people.disim.univaq.it/~dottorato_mate_mode/</a>

Reserved Ph.D. positions not part of the selection procedure
(assigned through other procedures)

Positions reserved for students selected within specific international mobility programs: n. 2

Positions reserved for scholarship holders from foreign countries: n. 2

Positions covered by scholarship reserved for applicants having obtained a Degree abroad n.0

Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 1



Ph.D. Course in CLINICAL MEDICINE AND PUBLIC HEALTH	
Ordinary places	7
of which	
with full grant	5
without financial support	2
Grant/Fellowship Funding	5 grants - University of Aquila
Duration	3 years
Curricula	a) Internal Medicine, Cardiovascular and Systems Sciences b) Epidemiology, Preventive Medicine and Nursing Sciences
University Department Responsible for the Ph.D. Course	Department of Life, Health and Environmental Sciences
Ph.D. Course Website	https://mesva.univaq.it/?q=node/9622
Ph.D. Course Coordinator	Prof. Claudio Ferri <u>claudio.ferri@univaq.it</u>
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.
Admission Procedure	Qualification assessment, written exam, oral exam.
Examination topics	Epidemiology, Preventive Medicine, Internal Medicine, Geriatrics, Cardiology, Nursing Sciences.
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>Summary, max. 2 pages, of the candidate's Degree thesis.</li> <li>Additional qualifications – scientific publications – deemed appropriate for admission.</li> <li>A report illustrating a possible research project the candidate wishes to carry out within the Ph.D. applied for (we underline that the report</li> </ol>



	presented by the candidate with his/her application shall not necessarily be the actual project carried out during the Ph.D. course if the candidate is admitted. In fact, the research project shall be defined and approved by the Ph.D.'s Board of Professors once the course begins).
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam  Admission The candidate may sit exams in ITALIAN or ENGLISH
Exam schedule	Qualification assessment: 5 <sup>th</sup> September, 2023 at 9:00 a.m.  Written exam: 5 <sup>th</sup> September, 2023 at 15:00 a.m. at the Department of Life, Health and Environmental Sciences - Blocco 11 - Piazzale S. Tommasi, 1 - Coppito, L'Aquila  Oral exam: 12 <sup>th</sup> September, 2023 at 9:00 a.m. at the Department of Life, Health and Environmental Sciences - Blocco 11 - Piazzale S. Tommasi, 1 - Coppito, L'Aquila
Assessment Criteria	The assessment procedure consists in three phases: qualification assessment, written exam and an oral exam. The candidate's score shall be indicated out of 100 points attributed as follows:  1. Qualification assessment: Max. 30 points as follows:  a. Degree mark: Up to 6 points  b. Degree thesis: Up to 4 points  c. CV: Up to 4 points  d. Publications: Up to 4 points  e. Additional qualifications: Up to 2 points  f. Research project: Up to 10 points  2. Written exam: Max. 40 points, with a 20 passing mark.  A written assignment chosen by the candidate among titles proposed by the examination commission regarding scientific topics pertaining to the Ph.D. course Curricula.  3. Oral exam: Max. 30 points.  The oral exam aims at assessing the candidate's aptitude for scientific research, his/her experience within the research sector and general knowledge of topics and issues pertinent to the Ph.D course. The oral exam will also include assessment of the applicant's English language skills in the scientific sector.
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website: <a href="http://mesva.univaq.it/">http://mesva.univaq.it/</a> .
Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected within specific international mobility programs: n. 0  Positions reserved for scholarship holders from foreign countries: n. 2  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 0

Ph.D. Course in  EXPERIMENTAL MEDICINE		
Ordinary places	15	
of which with full grant	12	
without financial support	3	
Grant/Fellowship Funding source	<ul> <li>8 grants - University of L'Aquila</li> <li>1 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR - "Doctorates for the Public Administration" - CUP E11I23000190001</li> <li>3 grants financed pursuant to Ministerial Decree 351/2022 • Mission 4, Component 1, Investment 4.1. of the PNRR - "PNRR Research" - CUP E11I23000130001</li> </ul>	
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "Ph.D. for Public Administration"	<ul> <li>n. 1 grant aimed at carrying out research concerning:</li> <li>"Enhancement of effective leadership and communication skills for employees of Conservatory of Music: management and development of human resources in a complex contexts" managed with Conservatorio di Musica "A. Casella" - L'Aquila. Referring Professor: G. Curcio</li> </ul>	
Tematiche borse DM 118/2023 M4C1 – Inv. 4.1 "Ricerca PNRR"	<ul> <li>n. 3 grants aimed at carrying out research concerning:</li> <li>"NF-KB AXIS in the pathogenesis of glaucoma" – Docente referente: F. Zazzeroni</li> <li>"New drugs development and their interaction with serine- and metallo-β-lactamases"- Referring Professor: M. G. Perilli</li> <li>"Sensors for civil bio-threat detection" in collaboration with Consorzio C.R.E.O. (Research Centre Electro-Optics) – Referring Professor: G. Celenza</li> </ul>	
Duration	3 years	
Curricula	<ul> <li>a) Experimental and Clinical Medicine, and Endocrinology</li> <li>b) Biotechnology and Biochemical Sciences</li> <li>c) Clinical, Medical and Surgical Sciences</li> <li>d) Basic and Clinical Neurosciences</li> </ul>	
University Department Responsible for the Ph.D. Course	Department of Biotechnological and Applied Clinical Sciences	
Ph.D. Course Website	https://discab.univaq.it/index.php?id=2841	
Ph.D. Course Coordinator	Prof.ssa Mariagrazia PERILLI <u>mariagrazia.perilli@univaq.it</u>	
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.	
Admission Procedure	Qualification assessment, written exam, oral exam.	
Examination topics	Examination Topics are related to the 4 curricula.	
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.	



	The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.		
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>The candidate must indicate the name of two professors with their e-mail address. The referent will receive an e-mail with the instruction to write the recommendation letter directly on line.</li> <li>Summary, max. 2 pages, of the candidate's Degree thesis.</li> <li>A report illustrating a possible research project the candidate wishes to carry out within the Ph.D. applied for (we underline that the report presented by the candidate with his/her application shall not necessarily be the actual project carried out during the Ph.D. course if the candidate is admitted. In fact, the research project shall be defined and approved by the Ph.D.'s Board of Professors once the course begins).</li> <li>Any additional qualifications deemed appropriate for admission.</li> </ol>		
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam  Admission The candidate may sit exams in ITALIAN or ENGLISH		
Exam schedule	Qualification assessment: 4 <sup>th</sup> September, 2023 at 15:00 p.m.  Written exam: 7 <sup>th</sup> September, 2023 at 10:00 a.m. – Classrooom C3.4, II floor, "Edificio A.C. De Meis", Coppito - L'Aquila  Oral exam: 6 <sup>th</sup> September, 2022 at 10:00 a.m Classrooom C3.4, II floor, "Edificio A.C. De Meis", Coppito - L'Aquila		
Assessment Criteria	The assessment procedure consists in three phases: qualifications evaluated, written exam and an oral exam. The candidate's score shall be expressed out of a total of 100 points, attributed as follows:  1. Qualification Assessment: max. 10 points attributed as follows:  a. CV and studorium: up to 2 points  b. Degree mark and exams taken: up to 6 points  c. Additional qualifications (Degree thesis, scientific publications, letters of recommendation): up to 2 points.  2. Written exam: max. 50 points, with a 35/50 passing mark. The aim of the written exam is to assess the applicant's basic knowledge and technical skills regarding the scientific research issues pertinent to Ph.D curricula.  3. Oral exam: The oral exam focuses on:  a. the candidate's experience in the research sector  b. his/her motivation and aptitude for research  c. discussion of a specific topic pertaining to the various curricula.  The oral exam will include assessment of English language skills. Foreign candidates may request to sit the oral exam in English. The maximum score for the oral exam is 40/40 with a 15/40 passing mark.		



Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website: <a href="https://discab.univaq.it">https://discab.univaq.it</a>
Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected within specific international mobility programs: n. 0  Positions reserved for scholarship holders from foreign countries: n. 0  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 0

Ph.D. Course in HEALTH AND ENVIRONMENTAL SCIENCES		
Ordinary places	9	
of which		
with full grant	7	
without financial support	2	
Grant/Fellowship Funding source	• 5 grants - University of Aquila • 2 grants financed pursuant to Ministerial Decree 118/2023 • Mission 4 Component 1, Investment 4.1. of the PNRR – "PNRR Research" – CUI E11I23000140001	
	2 grants aimed at carrying out research concerning:	
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PNRR Research"	<ul> <li>"Safety of workers professionally exposed to static and almost-static magnetic fields", managed with Tecnorad S.r.l. – Referring Professor: A. Galante</li> <li>"Extraction, characterization and biological activity of metabolites from macrofungi", managed with OTI Officine Terapie Innovative S.r.l. – Referring Professor: M. Leonardi</li> </ul>	
Duration	3 years	
Curricula	a) Translational Medicine b) Diagnostic, Molecular and Ultrastructural Imaging c)Pathophysiology of the stomatognathic system d) Psychosociorehabilitative Neuroscience e) Environmental Sciences	
University Department Responsible for the Ph.D. Course	Department of Life Health and Environmental Sciences	
Ph.D. Course Website	http://mesva.univaq.it/?q=node/6741	
Ph.D. Course Coordinator	Prof.ssa Maria Grazia CIFONE mariagrazia.cifone@univaq.it	
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.	
Admission Procedure	Qualification assessment, Written exam, Oral exam.	
Examination topics	<ul> <li>Curriculum "Translational Medicine"         The written test and oral test will focus on general and translating topics in the following interdisciplinary themes: Regenerative Medicine, Immuno-Mediated Chronic Inflammatory immuno-mediated Diseases, Molecular basis of tumor pathology, Microbiota in Health and Disease.     </li> <li>Curriculum "Diagnostic, Molecular and Ultrastructural Imaging"         The written test and the oral exam will focus on general topics in the following interdisciplinary topics: Molecular, preclinical, clinical and ultrastructural imaging and microscopy techniques.     </li> </ul>	
	- Curriculum "Pathophysiology of the stomatognathic system"  The written test and oral test will focus on general topics related to the following interdisciplinary themes: Interactions between oral and systemic health in relation to	

	the various apparatuses, Temporo-Mandibolary Disorders, Impact of rehabilitative therapies on general well-being and quality of life of the patient, Occlusion as a local condition of a general pattern: interactions, odontoiatric support to OSAS (Obstructive Sleep Apnea Syndromes).  - Curriculum "Psychosociorehabilitative Neuroscience"  The written test and the oral exam will focus on general topics related to the following interdisciplinary themes: The evolution of the concept of disability according to the World Health Organization, ICF, International Classification of Functioning, Disability of Health, Biopsychosocial determinants of disability. Multidimensional assessment of disability. Rehabilitation models.  - Curriculum "Environmental Sciences"  Written and oral exams will focus on topics of general relevance concerning concepts and methods of analysis and protection of the environment with an interdisciplinary perspective, with particular reference to Botany, Zoology and Ecology.
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>Summary, max. 2 pages, of the candidate's Degree thesis.</li> <li>Research project: a report illustrating a possible research project the candidate wishes to carry out within the Ph.D. applied for         <ul> <li>Brief summary of the project in Italian and English (maximum 500 characters including spaces).</li> <li>Maximum 5 keywords.</li> <li>Detailed description of the project (maximum 10000 characters including spaces). Background, purpose, methods, expected results, bibliography.</li> </ul> </li> <li>We underline that the research project presented by the candidate with his/her application shall not necessarily be the actual project carried out during the Ph.D. course if the candidate is admitted.</li> <li>A complete list and a copy of the candidate's publications in the last three years (2019-2023).</li> <li>Any additional qualifications deemed useful for the assessment, including a list of overall scientific publications.</li> </ol>
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam.  Admission The candidate may sit exams in ITALIAN or ENGLISH



	Qualification assessment: 5th September, 2023 at 03:00 p.m.
Exam Schedule	Written exam: 8 <sup>th</sup> September, 2023 at 10:00 a.m. at the Department of Life, Health and Environmental Sciences – Classroom Lombardi (D1.17) Building "Paride Stefanini" (Blocco 11A) - Piazzale S. Tommasi, 1, Coppito - L'Aquila
	Oral exam: The date of the oral exam will be announced on the day of the written exam and will take place at the Department of Life, Health and Environmental
Assessment Criteria	The examination procedure consists in three phases: qualification assessment, written exam and an oral exam. Final score shall be indicated out of a total of 100 points attributed as follows:
	<ol> <li>Qualification assessment: Max. 30 points attributed as follows:         <ul> <li>Degree mark: Up to 5 points</li> <li>Thesis pertaining to the Ph.D. curricula applied for: Up to 5 points</li> <li>Scientific publications: Up to 5 points</li> <li>Research project: up to 10 points</li> <li>Additional qualifications: Up to 5 points</li> </ul> </li> </ol>
	2. <b>Written exam:</b> max. 30 points, with a 18/30 passing mark Written assignment chosen by the candidate among three titles proposed by the examination commission on scientific topics pertaining to the Ph.D. course curriculum.
	3. <b>Oral exam:</b> max. 40 points The oral exam aims at assessing the applicant's aptitude for scientific research, his/her experience within the research sector and general knowledge of topics and issues pertinent to the Ph.D. course curriculum chosen by the candidate. The oral exam will also include assessment of the candidate's English language skills in the scientific field.
Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website: <a href="http://mesva.univaq.it/">http://mesva.univaq.it/</a>
Reserved Ph.D. positions not part of the selection procedure (assigned through other procedures)	Positions reserved for students selected within specific international mobility programs: n.0
	Positions reserved for scholarship holders from foreign countries: n. 2
	Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0
	Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n.0

Ph.D. Course in PHYSICAL AND CHEMICAL SCIENCES		
Ordinary Places	10	
Of which		
with full grant	9	
Without financial support	1	
Grant/Fellowship Funding source	<ul> <li>5 grants – University of L'Aquila</li> <li>2 grant financed pursuant to Ministerial Decree 118/2023 • Mission 4, Component 1, Investment 4.1. of the PNRR – "PNRR Research" - CUP - E11I23000150001</li> <li>1 grants financed pursuant to Ministerial Decree 117/2023 • Mission 4, Component 2, Investment 3.3. of the PNRR - "Innovative doctorates that respond to the innovation needs of companies" – CUP E11I2300021000</li> <li>1 grant financed by INFN</li> </ul>	
Grants subjects DM 118/2023 M4C1 – Inv. 4.1 "PNRR Research"	<ul> <li>2 grants aimed at carrying out research concerning:</li> <li>"Tuning of fhotoinduced charge transfer for new optogenetic potentialities", managed with CNR – Istituto Nanoscienze - Roma – Referring Professor: I. Daidone</li> <li>"Raman spectroscopy of cardiomyocytes for drug safety", Referring Professor: CNR - SuPerconducting and other INnovative materials and devices institute (CNR-SPIN c/o L'Aquila) - Genova – Referring Professor: A. Marini</li> </ul>	
Grants subjects DM 117/2023 M4C2 – Inv. 3.3 "Innovative doctorates that respond to the innovation needs of companies"	"Nanoscale Transport Measurements with Ohmic Contact Optimization" managed with Lfoundry S.r.l Avezzano (AQ) - Referring Professor: L. Ottaviano	
INFN	1 grant aimed at carrying out research concerning:  Astroparticle and gravitational physics, in particular neutrino physics, dark matter research and multimessenger physics, with implications for fundamental physics and cosmology. The activity can take place both in an experimental and theoretical field.	
Duration	3 years	
Curricula	////	
University Department Responsible for the Ph.DCourse	Department of Physical and Chemical Sciences	
Ph.D Course Website	https://dsfc.univaq.it/it/la-ricerca/dottorato.html	
Ph.D Course Coordinator	Prof. Massimiliano ASCHI massimiliano.aschi@univag.it	
Admission Pre-requisites	All Master-level Degrees or foreign degrees with certified equivalency or recognized as equivalent to the aforementioned qualifications.  Within the deadline indicated in this call for applications, candidates who are expected to obtain the above mentioned Degrees by no later than the enrollment, and before the Ph.D. programme's start date may also apply.	







Admission Procedure	Qualification assessment and oral exam. Foreign students may sit the oral exam in English. Candidates may request to sit the exam via web. Candidates must request this option when they present their application and provide valid contact details. Candidates must have valid photo-ID to be shown during the oral exam.	
Examination topics	Notions on Chemistry or Physics according to 2 <sup>nd</sup> cycle degree.	
How to apply	The application must be submitted only via the online procedure available at: <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a> .  The documents must be attached in pdf format.  The application and the attached documents are submitted automatically by closing the online procedure. So, no hard copy of the application and of the documents must be sent to the office.	
Documents to be annexed to the Application	<ol> <li>CV</li> <li>Candidates holding a degree from an Italian university must provide:         <ul> <li>Self-certification concerning their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification concerning their Master-level Degree course indicating final mark and list of exams taken and marks obtained.</li> </ul> </li> <li>Candidates enrolled in an Italian Degree Course must include:         <ul> <li>Self-certification of their Bachelor-level Degree indicating final mark and list of exams taken and marks obtained;</li> <li>Self-certification of the exams so far taken in their Master-level Degree course indicating marks obtained.</li> </ul> </li> <li>Applicants with foreign Degrees must follow the directions explained in article n. 4 of this call.</li> <li>The candidate can indicate the name of one or two professors with their e-mail address. The referees will receive an e-mail with the instruction to write the recommendation letter directly on line.</li> <li>Summary, max. 2 pages, of the candidate's Degree thesis.</li> <li>Scientific publications and any additional qualifications deemed appropriate for admission.</li> </ol>	
Language(s)	Assessment of foreign language skills English language skills and competence shall be assessed during the oral exam.  Admission The candidate may sit exams in ENGLISH	
Exam schedule	Qualification assessment: 2 <sup>nd</sup> September, 2022 at the Department of Physical at Chemical Sciences, Room <i>Signorelli</i> , Department of Physical and Chemical science L'Aquila  Oral exam: 5 <sup>th</sup> September, 2022 at the Department of Physical and Chemical Science Room <i>Signorelli</i> , Department of Physical and chemical sciences, L'Aquila	
Assessment Criteria	The examination procedure consists in two phases: qualification assessment and an oral exam. The candidate's scores will be indicated out of a total of 100 points attributed as follows:  1. Qualification assessment: assessment of the candidate's CV, letters of recommendation, publications and other qualifications. The minimum score required for admission to sit the oral exam is 30, the maximum score is 50 points.  2. Oral exam: the aim is to evaluate the candidate's aptitude and motivation for research. The oral exam consists in questions related to fundamental knowledge of chemical and physical; the oral exam can also take insipiration from the research project presented by the candidate (the research project won't be evaluate). The test also includes assessment of the candidate's English language skills. Foreign students may sit the oral exam in English. The minimum score needed to pass is 30 over a max. of 50 points for the oral exam.	



Title evaluation results publication	Title evaluation results shall be published on the University website <a href="https://www.univaq.it/section.php?id=2207">https://www.univaq.it/section.php?id=2207</a> and on Department website: <a href="https://dsfc.univaq.it">https://dsfc.univaq.it</a>
Additional Reserved Ph.D. positions not part of the selection procedure (assigned through other proce dures)	Positions reserved for students selected within specific international mobility programs: n. 2  Positions reserved for scholarship holders from foreign countries: n. 0  Positions covered by scholarship reserved for applicants having obtained a Degree abroad n. 0  Positions not covered by scholarship reserved for applicants having obtained a Degree abroad n. 0



# Technical guidelines for the submission of the application form for Ph.D. Courses XXXIX cycle

### Online application open until 24th August 2023 at 13.00 CEST

Online form available at: <a href="https://pica.cineca.it/univag/dottorato39">https://pica.cineca.it/univag/dottorato39</a>

- 1. The application form must only be submitted online. No hard copy of the application must be sent by post.
- 2. Before filling in the application form, please read carefully the selection announcement, in particular the chosen PhD course table in order to verify the eligibility criteria and the documents to be submitted.
- 3. WATCH OUT: ALL DOCUMENTS MUST BE UPLOADED IN PDF FORMAT AND, IN SOME CASES, THEY MUST BE PRINTED, SIGNED AND UPLOADED. WE ADVISE APPLICANTS TO USE A PC CONNECTED WITH A PRINTER AND A SCANNER.
- 4. It is possible to fill in the application form by logging in at different times and saving the data. In order to access the application form that has been partly completed you must click on Modify to complete it.
- 5. Further information may be requested through HELP POINT ONLINE, accessible from the website https://help.univaq.it/
- 6. For technical problems contact support via the link at the bottom of the page https://pica.cineca.it/univaq.
- 7. Applicants who want to apply for more than one Ph.D. course must submit as many applications as the chosen courses.
- 8. Applicants with foreign qualifications that have not been legally recognized as equivalent to Italian degrees must read art. 4.2 of the selection announcement and upload the required documents in the relevant section of the online application.
- 9. After the application has been correctly filled in and submitted, applicants will receive an email with the confirmation of the submission.

#### 1. DATA REGISTRATION

To start the registration go to the website <a href="https://pica.cineca.it/univaq/dottorato39">https://pica.cineca.it/univaq/dottorato39</a>
Access can be done via SPID. In the absence of SPID, at the first access applicants need to register by clicking on 'Register' and fill in the required data. If applicants already have LOGINMIUR credentials, they don't need to register again. They must access with their LOGINMIUR username and password in the relevant field LOGINMIUR.

In case you forgot username and password, click on 'Forgot your credentials?'.

After completing the data, click on 'New Registration'. Applicants will receive an email with the data to confirm their registration. In case you don't receive or cannot read the email, contact support via the link at the bottom of the page https://pica.cineca.it/univaq.



#### 2. APPLICATION FORM ACCESS

Once registered it is possible to access the website <a href="https://pica.cineca.it/univag/dottorato39">https://pica.cineca.it/univag/dottorato39</a>

and login with username and password to fill in the application form by clicking on 'New Submission'. Before filling in the application form, applicants can modify their personal data by clicking on the top right button (User Profile) and select what to modify.

The first section to be filled in is "PHD COURSE": the applicant must select the Ph.D. course and one of the curricula (where foreseen) and declare the position he/she is applying for (ordinary position or position reserved to candidates with scholarships funded by institution abroad or position without scholarship reserved to candidates holding a qualification acquired abroad).

In the case of an ordinary seat, it is possible to express a preference for themed scholarships, up to a maximum of three, by opening the appropriate menu

Candidates who competes for places reserved for scholarship holders from foreign countries, must indicate in the application for admission who finances the scholarship and attach the documentation relating to the grant.

After that, if foreseen in the announcement of the chosen Ph.D. course, the candidate is allowed to sit the oral exam abroad by skype or similar technologies. For that he/she must communicate a skype address or other links.

**WATCH OUT:** after completing each section of the form, the applicant must click on the button "SAVE AND PROCEED". Only if the data have been correctly filled in, the applicant can go to the next section. Otherwise error messages will display and will be compulsory to correct the data.

The section named "DECLARATIONS" display a list of declarations concerning the veracity of data inserted and the treatment of the personal data inserted in the application form.

The third section to be filled is "PERSONAL DATA". This section is partially filled by transferring data from the registration procedure thus the candidate must complete the missing items. In case of mistakes in personal data, applicants can modify them by clicking on the top right button (User Profile).

In the following section "Admission requirements" applicants must select one out of the four options proposed. After that applicants must specify the qualification awarded or to be awarde by the completion date of the enrollment, and in any case no later than the start date of the course (November 1<sup>st</sup>, 2023).

In the following section "FURTHER DECLARATIONS" the applicants must compulsory declare the level of knowledge of English language and if they are in situations preventing the receiving of the scholarship and/or of special needs.

In the section named "ATTACHMENTS" the applicant can upload the identity card (or passport) and all the qualifications and certifications required in order to participate to the selection of the chosen Ph.D. course. The references letters cannot be uploaded in this section: for these letters the applicant must follow a different procedures written above.

The applicant can write a self-declaration about the degree obtained and about all the exams passed. The self-declaration concerning the degrees obtained, can be written in a simple paper according to the scheme available below, or downloading the concerned form if it is available on the website of the home University.

The applicant must read carefully the list of documents required for the Ph.D. course chosen, in order to speed up the procedure.



In this section you must upload the documents requested for the recognition of the foreign academic degree (art. 4.2 of the selection announcement - Admission of applicants with foreign (non-Italian) qualifications). The files must be in pdf format and readable. For each file a brief description is needed.

Now, the candidate who has completed the application must return to the "Dashboard" and perform "Verify" If the system detects errors it is necessary to edit the application and proceed with "Verify" again. If the system does not indicate any errors, the candidate returns again to the "Dashboard" and selecting "Payment" makes the payment of the contribution of € 10.00 through "Pago PA" (Note: only candidates residing abroad, who do not have an Italian bank account, can make the payment by bank transfer).

After completing this section applicants will be redirected to the dashboard where they can see the draft of their application form. By pressing the bottom "Sign and submit" the process is finalised. By clicking on "Sign" bottom the process is finalise and the PDF file of application is generated.

### The application must be signed. <u>The absence of the signature, or of the handwritten signature, implicates the exclusion from the public competition.</u>

There are 3 methodologies to sign it and the candidate must select one of them and read carefully they directions.

According to article 5 of the call the possible methodologies are the following:

- By digital signature using smart card, USB token or remote signature which allow the owner to sign general documents by means of a signature software or a Remote Signature web portal made available by the Auditor. Those who have a Digital Signature smart card or USB token shall verify that they are compatible with the Digital Signature system integrated in the system server. If so, the owner may sign the application directly in the system server (e.g. ConFirma);
- Those who do not have compatible digital signature devices and the Remote Digital Signature Owners who may access a web portal for signing general documents shall save in their own PC the .pdf file generated by the system and, without modifying it, digitally sign it in CAdES format. A .p7m file will be generated, which shall be saved and uploaded again in the system. Any editing to the file before signing with the Digital Signature shall interfere with the automatic check of correspondence between the content of such a document and the original, and this will bring to the application exclusion;
- If none of the above-mentioned options can be used candidates shall save in their own PC the .pdf file generated by the system and, without modifying it, print and sign it with full original signature in the last page of the printed document. A scanned .pdf copy of such a document shall be produced and the file thus obtained shall be uploaded to the system.

In case the access to the platform is via SPID, it is not necessary to sign the application with one of the aforementioned methods.

In case the applicant decides to sign the PDF file he/she must verify that the file that is going to be upload is complete because the system accept only one PDF file.

After the submission applicants will receive an email with the confirmation of the submission. Applicants will always be able to login to their account, personal data and application form.

#### 3. REFERENCE LETTERS

Some Ph.D. courses require "references letters". In this case the applicant must indicate the names and addresses of two referees at maximum. The applicant must write in the form the official email address of the referee. A private email address is not allowed.



The referee will be informed of the candidates requirement and receive a reference letter form that he/she must submit by 30<sup>Th</sup> August 2023 at 1 o'clock p.m. CEST.

We advise applicants to inform referees that they will receive the request. When the referee fills in the letter and submits it, the applicant will receive an email specifying that the letter has been upload. Applicants, however, can always check the status of the request. Reference letters uploaded by applicants or sent by the referent directly to the university, will not be taken into consideration.

If applicants wish to change the referee they must contact support via the link at the bottom of the page https://pica.cineca.it/univaq.

### 4. APPLICATION FORM MODIFICATION OR WITHDRAWAL

Modifications of the application form after the pdf has been created are possible:

- If they have submitted the application form and received the email of confirmation applicants cannot modify the application form but they will be able to withdraw it following the relevant procedure available on the dashboard and submit a new application form.
- If they have created the pdf file but they have not completed the submission (the pdf file has not been uploaded yet and so they haven't received the email of confirmation) then they must contact support via the link at the bottom of the page https://pica.cineca.it/univaq and ask to have the application re-opened. In the email they must specify the reason of their request, the ID of their application form and attach copy of their identity document.









## Self-Declaration in substitution of certification (art. 46 D.P.R – 28<sup>th</sup> December 2000, n.445)

and/or

### Self-Declaration in substitution of attested affidavit (art. 47 D.P.R 28<sup>th</sup> December, 2000 n.445)

The undersigned	born in (place of	of birth)	on (date of
birth)			
residing in (city/State/Country)			Postal code
at (address)			
	<b>DECLARES:</b>		
1) in compliance to art(s). 46,47 art following Degree:	nd 38, D.P.R 28/12/200	00, n.445 that he/she ha	s been conferred the
Bachelor-level Degree in (title) Degree)	on (date issue	nt (name of University o d)	r College issuing the , mark
and that he/she passed the following exar	ns:		
EXAM (title of the exam/course)	MARK	DATE	
2) in compliance to art(s). 46,47 and Degree:	38, D.P.R 28/12/2000,	n.445 that he/she will be	confer the following
Master-level Degree in (title) Degree)	at on (date issue	(name of University or (d)	College issuing the
and that he/she passed at today the follow	ving exams:		
EXAM (title of the exam/course)	MARK	DATE	



The undersigned declares that he/she is aware of the sanctions applied in case of false statements established in art.76 D.P.R. 28/12/2014, n.445 and of the consequent loss of any benefits obtained by making false statements as established in art. 75 D.P.R. 28/12/2014, n.445.

The undersigned, under penalty of nullity of the applic	eation, shall enclose a photocopy of a valid ID.
Date,	
	(Applicant's signature)