



**Call for application for the admission to PhD programmes of the University of Udine in the Academic Year 2023/2024, 39<sup>th</sup> cycle**

**DISCLAIMER:**

The official and legally binding notice is in Italian only.

This document cannot be used for legal purposes and it is only meant to provide information in English on the notice for applications (Decree of the Rector n. 551 of July 25, 2023).

Please refer to the official notice published in the official register (<https://www.uniud.it/albo-ufficiale>) and on the PhD website of the University of Udine.

Any changes and integrations will be made available on the mentioned above web pages. Therefore, no personal written communication shall be provided to applicants about examinations dates, competition results and deadlines regarding the enrollment.

**Call for the allocation of additional PhD scholarship for the admission to the PhD programmes of the University of Udine a.y. 2023/2024 (39<sup>th</sup> cycle), funded with resources of the Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates. CUP G23C23001130008**

**ART. 1 – PhD PROGRAMMES**

1. The University of Udine issues the call for applications for PhD positions with scholarships, linked to the implementation of specific research topics under the Specific Programme 22/23 "Support For Higher Education in the Regional University System" of the Autonomous Region of Friuli Venezia Giulia's Regional Programme ESF+ 2021/2027 as part of the PhD programmes of the University of Udine, 39<sup>th</sup> cycle:

- Accounting and Management (Table 1)
- Law and Innovation in the European Legal Space (Table 2)
- Computer Science and Artificial Intelligence (Table 3)
- Industrial and Information Engineering (Table 4)
- Molecular Medicine (Table 5)
- Food Science (Table 6)
- Environmental and Energy Engineering Science (Table 7)
- Agricultural and Biotechnological Sciences (Table 8)
- Mathematical and Physical Sciences (Table 9)
- Clinical and Translational Medical Sciences (Scheda 10)
- Art History, Film Studies, Media Studies and Music (Table 11)
- Linguistics and Literature (Table 12)

2. The PhD programmes with scholarship listed in par.1 last three years starting from December 30, 2023. They will start only after funding has been granted by the Friuli Venezia Giulia Autonomous Region. PhD positions shall be managed by the University of Udine in accordance with the provisions of the Call referred to the Specific Programme 22/23 mentioned in paragraph 1 (Decree no. 17895/GRFVG of April 19, 2023).

3. The PhD positions with scholarship referred to in paragraph 1 are made available from the resources and in accordance with the regulations referred to in paragraph 2. There are no positions without scholarship, therefore waiver from the scholarship entails waiver from the PhD programme.



4. The doctoral programmes will ensure compliance with the horizontal priorities and the DNSH (Do No Significant Harm) principle as set out in section 12 of the Call referred to in paragraph 2.
5. If limitations are introduced due to a sanitary or epidemiological emergency, the activities of the PhD programmes could take place in a mixed modality, in-person and remotely. The methods of carrying out activities will be communicated by the University of Udine when the programme will start.
6. In this document the titles referred to people, shown in male form only, refer indiscriminately to people of all genders.

## **ART. 2 – GENERAL PROVISIONS**

1. This Call governs procedures and criteria to access to the PhD programmes listed in art. 1 with reference to the position with scholarship described in Tables 1-12.
2. Tables 1-12 are annexed to this Call and are integral part of it. They indicate for each PhD Programme: the administrative location and associated location(s) (if any); locations for training, teaching and research; the coordinator; programme duration; curricula (if activated); available positions and relevant research topics (if specified); the website of the PhD Programme; admission requirements; documents and qualifications to be attached to the application; the Selection Committee; optional period abroad; admission procedure (conduct of examinations; evaluation criteria; test schedules; publication date of admitted applicants' list to the interview and the final ranking lists).
3. The available positions may be reduced as provided for in art. 1 par. 2 and art. 10 par. 2.
4. Any amendments and additions of this Call and its annexes are posted on the official register (<https://www.uniud.it/it/albo-ufficiale>) and on the PhD website of the University of Udine.
5. Only the Italian Call has value of notification for all purposes, also for the purpose of invitation to the examination tests, if any.
6. Submission of the application through the online procedure, as stated in art. 6, implies the acceptance by the applicant of the provisions contained in this Call and in the Internal Regulation of PhD Programmes available on the PhD website of the University of Udine.
7. Any personal communications concerning this competition are sent to the applicant's e-mail address provided during the registration process as stated in art. 6, paragraph 2.
8. The University assumes no liability for the non-receipt of communications due to incorrect personal contact details provided by the applicant, for failure or delay in communicating changes thereof, nor for postal or electronic mishaps at any stage of the present competition procedure.

## **Art. 3 – ADMISSION REQUIREMENTS**

1. Applicants of any nationality may apply for the competition if they have one of the following academic degrees at the expiration date of the call:



a) “Laurea Specialistica” or “Laurea Magistrale” or “Laurea vecchio ordinamento<sup>1</sup>” or second level academic degree comparable to them;  
b) foreign degree, issued by a foreign official institution, comparable in duration and level<sup>2</sup> to the degrees referred to in letter a), and in the foreign system allows the admission to PhD Programmes. Tables 1-12 specify for each PhD Programme the type of degree required for participation in the competition and any additional requirements.

2. Applicants can apply for the competition if they obtain the degree referred to in paragraph 1 by December 29, 2023. Applicants who do not obtain the degree by December 29, 2023 will be excluded. Only for the PhD Programme in Law and Innovation in the European Legal Space a score less than 95/110 implies the exclusion. If applicants with the degree not yet obtained are winners, they are admitted and enrolled with reserve. They must certify their graduation in accordance with the provisions of art. 5 paragraph 5 no later than December 29, 2023.

Documentation must be submitted by filling in the form available on the website:  
[https://helpdesk.uniud.it/Login.jsp?manual=true&populateSR\\_id=42104](https://helpdesk.uniud.it/Login.jsp?manual=true&populateSR_id=42104)

3. All applicants are admitted to the competition on the condition that they meet the requirements of the Call. The University reserves the right to carry out sample checks<sup>3</sup> and may exclude applicants at any time from the selection process if they fail to meet the requirements as set out in the present article, even when the PhD Programme has already started.

#### **Art. 4 – ACADEMIC DEGREE OBTAINED ABROAD (art. 3 paragraph 1 letter b)**

1. The suitability of the foreign degree is assessed by the Selection Committee (art. 7) for the only purpose of participating in the competition and the enrolment in the PhD Programme in accordance with:

- the current legislation in Italy and in the country where the degree was issued;
- treaties or international agreements on recognition of the degree for further studies.

The Selection Committee will assess the suitability of the foreign degree on the basis of the documentation attached through the online application for the admission to the competition (articles 5 and 6). The Selection Committee may, therefore, exclude the applicant whenever the documentation submitted does not provide sufficient evidence for the evaluation. Therefore applicant must attach all the documents in his/her possession relating to the degree held, in order to provide sufficient elements for the Selection Committee's assessment.

2. Applicants with a degree obtained in a foreign university - if winners of the competition - must submit during the enrolment procedure (if they have not already submitted it during the online application), under penalty of exclusion from the PhD Programme, one of these documents:

##### **For degrees issued by a European Union country:**

Diploma Supplement in English.

##### **For degrees issued by an EXTRA UE country, one of these options:**

- Declaration of Local Value of the held degree and the certificate regarding the degree with exams and grades. The certificate in a language different than Italian or English must be accompanied by the translation in one of the two languages mentioned (the translation must be legalized by the diplomatic-consular competent authority or certified by an Italian Court).

<sup>1</sup> Degree awarded under the ante Decree of the Ministry no. 509 of November 3<sup>rd</sup>, 1999, modified with Decree of the Ministry no. 270 of October 22<sup>nd</sup>, 2004.

<sup>2</sup> Master of Science/Art

<sup>3</sup> Under Article 71 of D.P.R. December 28<sup>th</sup>, 2000, no. 445



- "Foreign Degree Statement of comparability - CIMEA" issued in accordance with the terms set in the website [www.cimea.it](http://www.cimea.it).

If the Diploma Supplement or the Declaration of Local Value/Statement of comparability is not available at the moment of the enrolment procedure, the candidate must prove that he/she has applied for it by that date and submit them as soon as possible.

#### **Art. 5 – QUALIFICATIONS SUBJECT TO ASSESSMENT AND DOCUMENTS TO BE SUBMITTED**

1. Applicants must submit the mandatory documents and qualifications specified for each PhD Programme in Tables 1-12.

2. In Tables 1-12 optional documents and qualifications required by each PhD programme are also listed.

3. For a correct submission of the application, candidates are invited to use the forms attached which are integral part of the Call.

4. Documents and qualifications referred to in paragraphs 1 and 2 must be submitted in Italian or English, under penalty of not evaluation. Documents and qualifications, originally in a different language, must be accompanied by a translation into Italian or English made by the applicant. Any translation into these two languages is under the applicant's responsibility. The translation of the thesis can be an extended abstract in place of the complete thesis.

5. Italian and EU applicants who present qualifications referred to states and facts issued by Public Administrations, must use a self-certification.

Non-EU citizens, legally residing in Italy, may self-certify only information that can be verified or certified by Italian public entities. They can also use a substitute statement of certification, when it is provided by an international agreement between Italy and the applicant's country.

Non-EU citizens other than those above mentioned must refer to the provisions of art. 3 paragraphs 3 and 4 of the d.P.R.445/2000<sup>4</sup>.

6. The only documents evaluated are those the applicant has submitted within the deadlines and the manners specified in art. 6 within the expiration date of the Call. Documents submitted in any other way are not be evaluated.

7. Failure to submit the mandatory documents listed in Tables 1-12 involves the exclusion from the selection process.

#### **Art. 6 – APPLICATION FOR ADMISSION**

1. Entries to competitions begin on **Monday July 31, 2023 at 02:00 p.m. (Italian time)** and end on **Friday September 1, 2023 at 02:00 p.m. (Italian time)**.

2. **The application for admission to the competition must be completed, under penalty of exclusion, using the special online procedure**, that involves two stages:

- **Stage I – Registration at the University website** (<https://uniud.esse3.cineca.it>): it allows the applicant to obtain a username and password (credentials) in order to continue with the next stage<sup>5</sup>;

<sup>4</sup> Under the D.P.R. December 28, 2000, n. 445 and subsequent amendments and additions.

<sup>5</sup> If the applicant already owns the credentials to access the reserved area (e.g.: former student of University of Udine) this step should not be considered.



• **Stage II – Completing the online application** (<https://uniud.esse3.cineca.it>): at the end of this stage applicant must print out the application form and keep it together with the receipt of the fees payment (paragraph 8 of this article) as proof of application for the competition.

3. Instructions for registration to the University website and for apply for the competition are available on the PhD website of the University of Udine.

4. Documents, qualifications and publications referred to in art. 5 must be attached to the online application in electronic format (.pdf), except for the letters of reference. **Files and/or folders, compressed in RAR or ZIP format, cannot be larger than 5 MB.** The applicant can add, delete or modify the attached documents even after the conclusion of stage II, but before the expiry of the call, on **September 1, 2023 at 02:00 p.m. (Italian time)**. The university administration assumes no liability if the documentation submitted is illegible because of damaged files or folders.

5. Every folder/file attachment must be named as follows: surname of the applicant\_PhD programme\_document (e.g.: McDONALD\_ALIMENTI\_Curriculum).

6. Letters of reference, if provided by the PhD competition (Tables 1-12), must be uploaded directly by the referee via the online procedure at the candidate's request. During the submission of the application, the applicant must enter the email address of the referee, who will receive an email notification with the instructions to proceed for uploading the letter. Applicant and referee receive a notification about the successful upload of the letter, which will be available only for the Area Servizi per la Ricerca – Ufficio Formazione per la Ricerca and for the Selection Committee. The applicant can make a reminder to the referee and replace his/her name with another one by the expiry date of the call (**September 1, 2023 at 02:00 p.m. Italian time**).

The referee must upload the letter of reference before **September 3, 2023**.

7. The admission to the competition requires the payment of euro 25.00 (as a contribution for participating in the competition). Applicants must pay the fee by **Friday September 1, 2023**. Applicants who do not pay the above-mentioned fee (euro 25.00) by the day before the date of the Selection Committee's preliminary meeting, will be excluded.

The dates of the Selection Committee's preliminary meeting will be posted by August 31, 2023 on the official register (<https://www.uniud.it/it/albo-ufficiale>) and on the PhD website of the University of Udine.

8. The amount referred to in paragraph 7 is not refundable for any reason and must be paid via PagoPA service using one of the following options:

- direct access in Esse3 system to one of the payment methods available in PagoPA using the data contained in the "Avviso di pagamento" (Notice of Payment) issued at the end of the online application (available on the "Student Administration Office/Payments" of Esse3 portal personal area);

- payment at bank branches and receivers authorized to pay via PagoPA showing the "Avviso di pagamento" (Notice of Payment) issued at the end of the online application (available on the "Student Administration Office/Payments" of Esse3 portal personal area);

- from your account with online services (if activated by the bank) or with credit card or prepaid card with IBAN. For payments by credit or prepaid card refer to the circuit related to the card, NOT to the bank issuing the card. You need to print or save the "Avviso di pagamento" (Notice of Payment - available on the "Student Administration Office/Payments" of Esse3 portal personal area) to have the data required to make the payment.

Applicants who are abroad and don't have an Italian bank account can **exceptionally** make a bank transfer to University of Udine's bank account: INTESA SANPAOLO



**IT59A030691234410000046097 SWIFT/BIC BCITITMM** entering "PhD competition – Applicant's Name and Surname" as reason for payment. Only in this case, the receipt of the payment have to be attached to the online application.

The payment is subject to the fees applied by the payment service provider.

9. Applicants who wish to apply for several PhD competitions have to submit several applications, attaching the required documents to each one and paying the fee for each one (paragraph 7). However, the applicant cannot apply for more than one curriculum in the same PhD programme.

10. Applicants with certified disabilities or specific learning disorders, may notify them during the online application (refer to paragraph 2 of this article):

- their situation attaching the certificate attesting the disability or the specific learning disorder;
- aids to conduct the examinations.

Applicants with disabilities or learning disorder, residing in foreign countries, who intend to take advantage of the measures described above, have to present a certificate attesting to the state of disability or the learning disorder issued in their country of residence. The certificate has to be accompanied by a sworn translation in Italian or English language. The university bodies in charge to check the certifications verify that foreign certificate attests a condition of disability or specific learning disorder recognized by Italian legislation.

Different ways of supporting the examinations will be defined by the Selection Committee after checking the documentation submitted. In particular, for students with specific learning disorder, an additional time of 30 per cent more than the time defined for the admission test, will be granted. In case of particular gravity, additional aids may be provided.

Further information can be provided by the Direzione didattica e Servizi agli Studenti (DIDS) – Servizio studenti con disabili o dsa, tel. +39 0432 556804 - email: [servizi.disabili@uniud.it](mailto:servizi.disabili@uniud.it), [dsa@uniud.it](mailto:dsa@uniud.it)

11. The university administration assumes no liability for loss information due to an error that it has not committed, due to inaccurate information provided by the candidate regarding his/her residence, postal address and e-mail address or due to failure or delay in communicating a change thereof.

12. Applicants are advised not to wait until the last days before the deadline of the online procedure. The University assumes no liability for any malfunctions due to technical problems and/or overloading of the communication line and/or application systems.

#### **Art. 7 – SELECTION COMMITTEE**

11. The Selection Committee of each PhD programme is listed in Tables 1-12.

2. Each Selection Committee appoints its own internal President and Secretary during the first meeting.

3. Before the qualifications assessment and before the start of the examinations, the Selection Committee establishes the evaluation criteria and the scores assigned to the qualifications and to the examinations, taking into account the criteria specified in Tables 1-12.

4. The Selection Committee meetings can be held remotely.

5. The Selection Committee expresses the assessment of suitability with the aim of awarding scholarships referred to in art. 10, paragraph 2.



6. The Selection Committee's tasks finish with the drawing up of reports and final ranking lists.

#### **Art. 8 – GENERAL COMPETITION**

1. Applicants' selection involves assessment of the qualifications and conduct of the examinations, in the manner and on the dates specified in Tables 1-12. Any changes or additions to the examinations schedule are posted only on the official register (<https://www.uniud.it/it/albo-ufficiale>) and on the PhD website of the University of Udine.

2. Assessment of qualifications and examinations are held according to the following general provisions:

- a. the maximum score for overall qualifications and examinations is 100 (100/100). PhD programmes with widely different curricula may have examinations diversified;
- b. the score for qualifications is 30 (30/100), the minimum score to be admitted to the first examination (written or oral) is stated in each table;
- c. the score assigned for the examinations is 70 points (70/100). Applicants are eligible if they achieve a score equal to or greater than 49 in the examinations;
- d. the final ranking is unique and it is prepared, only for eligible applicants, by adding together the scores obtained in the assessment of qualifications and in the examination tests.

3. In order to take the examination tests, candidates must present a valid identification document.

4. Candidates who are unable to participate in the interview (if it is held in-person) at the University of Udine, either because they are permanently resident abroad on the date of the test or for valid and well-documented reasons, may ask the Selection Committee to take the oral test remotely. They have to submit the request form during the on line application.

Details of the interview by videoconference are notified to the candidates to the e-mail address provided during the registration procedure referred to in art. 6, paragraph 2. Candidate must be available on the day and at the time communicated. For the purposes of identification and under penalty of exclusion from the selection procedure, each candidate must identify him/herself before the interview begins by showing the same identity document attached to the on line application. Failure to provide a personal address, failure to be connected, candidate's unavailability on the appointed day or time or failure to produce the identification document, are grounds for exclusion from the selection procedure. These grounds for exclusion do not exist if the candidate, in possession of a valid identification document, appears on the day scheduled for the test in order to take an in-person interview. The University accepts no liability in the event of technical problems that do not guarantee the proper conduct of the oral test.

5. The University reserves the right to conduct the interviews remotely if the restrictions on mobility and aggregation determined by the persistence of current health and epidemiological emergencies persist. The University will make this modality known on the official register (<https://www.uniud.it/it/albo-ufficiale>) and on the University of Udine PhD website. In this case the provisions of paragraph 4 above shall be applied insofar as they are compatible.

6. Oral exams are public, including those which are conducted remotely.

#### **Art. 9 – FINAL RANKING**

1. The final ranking is posted on the official register (<https://www.uniud.it/it/albo-ufficiale>) and on the PhD website of the University of Udine within the dates detailed for each PhD programme in Tables 1-12.



2. The university does not send out any communication to the applicants.

#### **Art. 10 – ADMISSION TO THE PROGRAMME**

1. Applicants are admitted to each PhD programme according to the final ranking order and to the provisions of this article.

2. Scholarship are awarded to eligible applicants as follows: according to the final ranking order and to the number of positions available, if the candidate has obtained the Selection Committee's assessment of suitability as to the consistency of his/her project and qualifications with the research topic of interest and with the criteria of the regulatory provisions listed in art. 1 par.2.

2.1 Failure to award scholarships entails a reduction in the number of positions with scholarship.

2.2 If merit and requirements are equal, the economic condition of the candidate's household shall be the criterion of preference for the allocation of positions with scholarships.<sup>6</sup>

3. In the case of useful placement in more rankings referred to different PhD programmes, applicant must enrol in only one PhD programme.

#### **Art. 11 – ENROLMENT**

1. **Successful applicants must enrol using the appropriate online procedure according to the deadlines and conditions notified by email, under penalty of exclusion (art. 2 paragraph 8).**

2. Enrolment to the PhD programme is subject to the payment of the amount specified in art. 14 under penalty of exclusion from the PhD programme. **Successful candidates must be resident or domiciled in the territory of Friuli Venezia Giulia as from December 30, 2023.**

3. The amount referred to in paragraph 2 is not refundable for any reason and the payment must be made via PagoPA service using one of the following options:

- direct access in Esse3 system to one of the payment methods available in PagoPA using the data included in the "Avviso di pagamento" (notice of Payment) issued at the end of the online application (available on the "Student Administration Office/Payments" of Esse3 portal personal area);

- payment at bank branches and receivers authorized to pay via PagoPA showing the "Avviso di pagamento" (notice of Payment) issued at the end of the online application (available on the "Student Administration Office/Payments" of Esse3 portal personal area);

- from your account with online services (if activated by the bank) or with credit card or prepaid card with IBAN. For payments by credit or prepaid card refer to the circuit related to the card, NOT to the bank issuing the card. You need to print or save the "Avviso di pagamento" (notice of Payment - (available on the "Student Administration Office/Payments" of Esse3 portal personal area) to view the data required to make the payment.

Applicants who are abroad and don't have an Italian bank account can **exceptionally** make a bank transfer to University of Udine's bank account INTESA SANPAOLO: **IT59A0306912344100000046097 SWIFT/BIC BCITITMM** entering "Enrolment in PhD programme" as reason for payment. Only in this case, the receipt of the payment have to be attached to the online application.

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<sup>6</sup> Current legislation about the right to study, ISEE.





4. Enrolment will be completed by the University of Udine only once the funding referred to in article 1, paragraph 2 has been granted.

5. Non-UE Citizens must comply with the rules on visa and residence permits. A copy of the residence permit or – pending the release – the receipt of the application for the residence permit must be submitted to Area Servizi per la Ricerca – Ufficio Formazione per la Ricerca, via Mantica, 31 – 33100 Udine.

6. The university administration accepts no liability in the event of lost communications due to any misunderstandings beyond the administration's control.

#### **Art. 12 – REPLACEMENTS**

1. Candidates who do not enrol according to the deadlines referred to in art.11 are considered to have withdrawn. The positions that have become available are assigned to other applicants according to the final ranking, taking into account provisions of art. 10.

2. The list of replacement applicants is posted on the official register (<https://www.uniud.it/it/albo-ufficiale>) and on the PhD website of the University of Udine.

3. Replacement applicants must enrol under the deadlines and conditions notified by email (art. 2 p. 8), under penalty of exclusion from the programme.

4. Any further replacements positions will be notified directly to the relevant applicants.

#### **Art. 13 – SCHOLARSHIPS**

1. Scholarships are linked to specific research topics (Tables 1-12).

2. Scholarships are awarded in accordance with art.1 and art. 10.

3. Scholarships have a duration of three years, subject to the provisions of art. 19 p. 3, art. 20 p. 2 and art. 24 of the Internal Regulations for the PhD Programmes. Scholarships are renewed annually on condition that the PhD student has completed the planned activities program, as verified by the Teaching Board.

4. The annual gross amount of the scholarship is specified in Tables 1-12 and is subject to the social security tax (INPS a gestione separata). The scholarship is paid on monthly basis in the following month. The amount of the scholarship is increased for research activities abroad by the 50% for a total period specified in Tables 1-12, unless additional financial resources are available. In any case, the increase is only due for continuous periods of stay of not less than thirty days.

5. The scholarship cannot be assigned to those who have already received a scholarship to attend another PhD programme or an equivalent programme.

6. The scholarship cannot be combined with research grants or other scholarships awarded for any purpose, except for those awarded by national or foreign institutions useful to integrate the abroad research activity of the PhD students. Further incompatibilities are defined by the Internal Regulation for the PhD programmes.



7. In addition to the rights and duties required by the reference regulations (art. 17), in accordance with the regulatory provisions of art. 1 paragraph 2, the successful candidate by accepting the grant:

- undertakes to submit the reports on the activities carried out according with methods and terms that will be communicated by the University of Udine and in compliance with the regulatory provisions of the art. 1 paragraph 2;

- undertakes to ensure compliance with the obligations on communication and information provided for in article 11 "Information and publicity" of the Decree cited in article 1, paragraph 2 of this Call;

- is aware that any change in the activities, project objectives and expected results, when not previously authorised, entails the revocation of the scholarship;

- is aware that any negative judgement by the Teaching Board and the consequent non-admission to the following year of the doctoral programme, the failure to obtain the degree and the withdrawal from the PhD Programme results in the revocation of the scholarship;

- is aware that he/she must comply with the principle of "do no significant harm" (DNSH);

- is aware that the doctoral programme may be legitimately suspended for maternity, parental leave, serious health reasons and other causes beyond the control of the doctoral student and serious enough to prevent the performance of the doctoral activity in the judgement of the Teaching Board of the PhD Programme and the competent bodies of the Friuli Venezia Giulia Region;

- is aware that the University may also seek reimbursement of the amounts received in the following cases of renunciation of the scholarship:

- at least 40% of the planned duration of the training programme has not been completed, if the interruption is due to the student taking up a new job or a new academic appointment;

- the interruption is not due to the causes of suspension indicated in the previous paragraph, regardless of the period completed.

#### **Art. 14 – ACADEMIC FEES**

1. For the Academic Year 2023/2024 is foreseen the payment of maximum amount of euro 276.00:

- university contribution, euro 100.00;

- regional tax for the right to university study, from euro 120.00 to euro 160.00 (economic condition of the candidate's household <sup>7</sup>);

- duty stamp, euro 16.00.

The amount will be requested at the moment of the enrolment and any exemption will be applied in accordance with the current legislation.

2. However, the university administration reserves to adopt different regulations for the following academic years.

#### **Art. 15 – PERSONAL DATA**

1. The personal data collected under the procedure referred to in art. 6 are necessary for the proper management of the selection procedure, for any subsequent career management and for purposes related to the management of the services provided to students during the university PhD programme. The University of Udine is the "Data Controller". At any time, you can request access, corrections and, according to the University institutional purposes, the cancellation and limitation of the processing or oppose the processing of your data. You can always submit a complaint to the Italian Authority for data protection. The complete information is available on the University of Udine website in the section "privacy" <https://www.uniud.it/it/it/pagine-speciali/guida/privacy>.

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<sup>7</sup> Current legislation about the right to study, ISEE.



#### **Art. 16 – HEAD OF PROCEDURE**

1. The officer in charge of the proceedings is Dr. Sandra Salvador, Head of Area Servizi per la Ricerca of the University of Udine.

The PhD Office of the University of Udine is the Area Servizi per la Ricerca – Ufficio Formazione per la Ricerca, via Mantica n. 31 - 33100 Udine.

2. To request information, fill in the following forms available on the website of the University of Udine:

Information about the Call:

[https://helpdesk.uniud.it/Login.jsp?manual=true&populateSR\\_id=42104](https://helpdesk.uniud.it/Login.jsp?manual=true&populateSR_id=42104)

Information about Esse3:

[https://helpdesk.uniud.it/Login.jsp?manual=true&populateSR\\_id=42094](https://helpdesk.uniud.it/Login.jsp?manual=true&populateSR_id=42094)

#### **Art. 17 – REFERENCE RULES**

1. For matters not covered by this Call, please refer to the National legislation in the field of doctoral research mentioned in the introduction, to the Internal Regulations for the PhD programmes and to the Rules of Procedure relating to patents, to the regulatory provisions listed in art. 1, par. 2 available on the website dedicated to the PhD programmes of the University of Udine.



**TABLE 1 – PhD Programme in ACCOUNTING AND MANAGEMENT**

<b>THE PhD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine, Department of Economics and Statistics (DIES) - via Tomadini 30/A, 33100 Udine, ITALY (tel. +39 0432 249380)
<b>Associated location</b>	University of Verona (Department of Management) – Via Cantarane, 24 - 37129 Verona, ITALY
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location and at the associated programme location, or in other locations of the University of Udine and Verona or in other locations which participate to the doctoral project with which the PhD programme has teaching agreements. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Filippo Zanin (filippo.zanin@uniud.it).
<b>Programme duration</b>	3 years
<b>Curricula</b>	-
<b>Research topics</b>	<ul style="list-style-type: none"> <li>- Sustainability performance measurement and reporting</li> <li>- Circular economy and sustainability: ownership and governance structures and business models</li> <li>- Logistics and supply chain management within the circular economy practice</li> <li>- Internationalization and digital transformation</li> <li>- Sustainability and innovation adoption in the food value chain</li> </ul>
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/accounting-and-management-1/ph-d-programme/accounting-and-management?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/accounting-and-management-1/ph-d-programme/accounting-and-management?set_language=en</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea specialistica/magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	English

<b>DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale programmes, or during the Italian programmes before D.M. 509/99, or during the foreign academic programmes;</li> <li>2. Curriculum vitae et studiorum, dated and signed;</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>
<b>Optional documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Letters of reference (max 2), from university professors, scientific researchers or other experts in the field (art. 6 of the Call).</li> </ol>

<b>SELECTION COMMITTEE</b>	
<b>Appointed members</b>	Filippo Zanin – associated professor – University of Udine Josanco Floreani – full professor – University of Udine Luca Giovanni Carlo Brusati – full professor – University of Udine
<b>Substitute members</b>	Eugenio Comuzzi – full professor – University of Udine Cinzia Battistella – associated professor – University of Udine

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**



**TABLE 1 – PhD Programme in ACCOUNTING AND MANAGEMENT**

Available positions: 1					
Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topic
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	<ol style="list-style-type: none"> <li>1. Sustainability performance measurement and reporting</li> <li>2. Circular economy and sustainability: ownership and governance structures and business models</li> <li>3. Logistics and supply chain management within the circular economy practice</li> <li>4. Internationalization and digital transformation</li> <li>5. Sustainability and innovation adoption in the food value chain</li> </ol> <p>The research programs will have to highlight the operational effects on the territory of the FVG Region both at the enterprise level (improvement of managerial practices, best practices, innovation and originality) and for the definition of regional policies</p>

Competition procedure and test schedule		
<p>Evaluation of qualifications and oral examination.</p> <p>For the evaluation of applicants' attitude for scientific research and their basic skills to tackle the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. The applicant is admitted to the oral examination if his/her titles receive at least 21 points. The oral examination is passed with at least 49 points. The applicant is admitted to the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles.</p> <p><b>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 12, 2023</b></p> <p><b>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023</b></p>		
Foreign language that can be used for examination	English	
Evaluation Criteria of qualifications <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum vitae et studiorum	10
	Research project	18
	Letters of reference	2
Oral examination	As all the classes are held in English, the oral examination will take place in English.	
Calendar of the oral examination	Date	September 15th, 2023
	Time	5:00 PM
	How to conduct the examination	ONLINE, via M TEAMS
	Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid ID for admission to the oral examination.	

RESEARCH TOPICS		
Title	Trajectory S4	Impact on FVG Region
1. Sustainability performance	Energy transition, circular economy and environmental sustainability. - Trajectory 1: Application of the circular economy at system level (area, network, supply chain)	Implications for local companies and supply chains: improved management practices, efficiency gains, best practices, innovation



**TABLE 1 – PhD Programme in ACCOUNTING AND MANAGEMENT**

measurement and reporting	<p>Intelligent Factory and Sustainable Development of Made in Italy Supply Chains</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Solutions and technologies for product innovation</li> <li>- Trajectory 2: Sustainable development and commercial resilience for regional Made in Italy supply chains</li> <li>- Trajectory 3: Solutions and technologies for process innovation</li> <li>- Trajectory 4: Technologies for organisational management and development</li> <li>- Trajectory 5: Innovation of social systems and valorisation of human resources in manufacturing</li> </ul>	and originality of business models, increased competitiveness in international contexts
2. Circular economy and sustainability: ownership and governance structures and business models	<p>Energy transition, circular economy and environmental sustainability.</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Application of the circular economy at system level (area, network, supply chain)</li> </ul> <p>Intelligent Factory and Sustainable Development of Made in Italy Supply Chains</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Solutions and technologies for product innovation</li> <li>- Trajectory 2: Sustainable development and commercial resilience for regional Made in Italy supply chains</li> <li>- Trajectory 3: Solutions and technologies for process innovation</li> <li>- Trajectory 4: Technologies for organisational management and development</li> <li>- Trajectory 5: Innovation of social systems and valorisation of human resources in manufacturing</li> </ul>	Implications for local companies and supply chains: improved management practices, efficiency gains, best practices, innovation and originality of business models, increased competitiveness in international contexts
3. Logistics and supply chain management within the circular economy practice	<p>Energy transition, circular economy and environmental sustainability.</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Application of the circular economy at system level (area, network, supply chain)</li> </ul> <p>Intelligent Factory and Sustainable Development of Made in Italy Supply Chains</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Solutions and technologies for product innovation</li> <li>- Trajectory 2: Sustainable development and commercial resilience for regional Made in Italy supply chains</li> <li>- Trajectory 3: Solutions and technologies for process innovation</li> <li>- Trajectory 4: Technologies for organisational management and development</li> <li>- Trajectory 5: Innovation of social systems and valorisation of human resources in manufacturing</li> </ul>	Implications for local companies and supply chains: improved management practices, efficiency gains, best practices, innovation and originality of business models, increased competitiveness in international contexts
4. Internationalization and digital transformation	<p>Energy transition, circular economy and environmental sustainability.</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Application of the circular economy at system level (area, network, supply chain)</li> </ul> <p>Intelligent Factory and Sustainable Development of Made in Italy Supply Chains</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Solutions and technologies for product innovation</li> <li>- Trajectory 2: Sustainable development and commercial resilience for regional Made in Italy supply chains</li> <li>- Trajectory 3: Solutions and technologies for process innovation</li> <li>- Trajectory 4: Technologies for organisational management and development</li> <li>- Trajectory 5: Innovation of social systems and valorisation of human resources in manufacturing</li> </ul>	Implications for local companies and supply chains: improved management practices, efficiency gains, best practices, innovation and originality of business models, increased competitiveness in international contexts
5. Sustainability and innovation adoption in the food value chain	<p>Energy transition, circular economy and environmental sustainability.</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Application of the circular economy at system level (area, network, supply chain)</li> </ul> <p>Intelligent Factory and Sustainable Development of Made in Italy Supply Chains</p> <ul style="list-style-type: none"> <li>- Trajectory 1: Solutions and technologies for product innovation</li> <li>- Trajectory 2: Sustainable development and commercial resilience for regional Made in Italy supply chains</li> <li>- Trajectory 3: Solutions and technologies for process innovation</li> <li>- Trajectory 4: Technologies for organisational management and development</li> <li>- Trajectory 5: Innovation of social systems and valorisation of human resources in manufacturing</li> </ul>	Implications for local companies and supply chains: improved management practices, efficiency gains, best practices, innovation and originality of business models, increased competitiveness in international contexts



**UNIVERSITÀ  
DEGLI STUDI  
DI UDINE**  
hic sunt futura

**DECRETO  
RETTORALE**



Cofinanziato  
dall'Unione europea



REGIONE AUTONOMA  
FRIULI VENEZIA GIULIA

**TABLE 1 – PhD Programme in ACCOUNTING AND MANAGEMENT**



**TABLE 2 – PhD Programme in LAW AND INNOVATION IN THE EUROPEAN LEGAL SPACE**

<b>THE PHD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine, Department of Legal Science (DISG), via Treppo 18, 33100 Udine, ITALY (tel. +39 0432 249520)
<b>Associated location</b>	University of Trieste (Department of Legal, Language, Interpreting and Translation studies) - piazzale Europa 1, 34127 Trieste, ITALY
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Paolo Giangaspero (giangasp@units.it)
<b>Programme duration</b>	3 years
<b>Curricula</b>	- <i>Private and Economic Area</i> IUS/01 Private Law, IUS/02 Comparative Private Law, IUS/03 Agrarian Law, IUS/04 Commercial Law, IUS/06 Maritime Law, IUS/07 Labour Law, IUS/18 Roman Law - <i>Public Area</i> IUS/08 Constitutional Law, IUS/10 Administrative Law, IUS/21 Comparative Public Law, IUS/13 International Law, IUS/14 European Law, IUS/12 Tax Law, IUS/15 Civil Procedure; IUS/17 Criminal Law, IUS/16 Criminal Procedure
<b>Research topics</b>	Research topics covered under the scientific domains (IUS/) within each Curricula of the Ph.D. programme.
<b>Research programs</b>	The research programs are determined by the Teaching Board in the field of subjects referred to one or more scientific domains included in the curricula of the Ph.D. programme.
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/law-and-innovation-in-the-european-legal-space/ph-d-programme/law-and-innovation-in-the-european-legal-space?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/law-and-innovation-in-the-european-legal-space/ph-d-programme/law-and-innovation-in-the-european-legal-space?set_language=en</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea Specialistica/Magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	English

<b>DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and mark degree. Applicants with qualification not yet obtained must submit certification or self-certification (as art. 5 paragraph 5 of the Call) of the academic degree needed for admission to the PhD programme and list of exams (list of exams: single score, average score and maximum score);</li> <li>2. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>3. A research project, dated and signed, developed in accordance with one of the research topics/research programs of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>
<b>Optional documents (art. 5 of the Call)</b>	-
<b>All titles must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

<b>SELECTION COMMITTEE</b>	
<b>Appointed members</b>	Elisabetta Bergamini – full professor – University of Udine Marina Brollo – full professor – University of Udine Mario Nussi - full professor – University of Udine Angelo Venchiarutti – associate professor – University of Udine di Trieste
<b>Substitute members</b>	Paolo Giangaspero – full professor – University of Trieste Luca Ballerini – associate professor – University of Trieste





**TABLE 2 – PhD Programme in LAW AND INNOVATION IN THE EUROPEAN LEGAL SPACE**

Giulia Milo – researcher – Università di Trieste Gian Paolo Dolso – full professor – University of Trieste
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**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

Available positions: 1

Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topic
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	Artificial intelligence in healthcare. Application profiles and civil liability

**Competition procedure and test schedule**

**Evaluation of qualifications and oral examination.**

Evaluation of qualifications and oral examinations.

For the evaluation of applicants' attitude for scientific research and their knowledge to develop the topic of interest, the Selection Committee can attribute up to 100 points to each applicant: at most 30 points to the qualifications and at most 70 points to the oral examination. The applicant is admitted to the interview if he/she scores at least 21 points for the qualifications. The oral examination is passed by scoring at least 49 points. The applicant is eligible for the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the qualifications. Enrolment in the PhD programme for winner applicants with not yet obtained degree will be possible only if the degree mark obtained is equal or greater than 95/110 (see art. 3 paragraph 2 of the Call).

**DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 8, 2023.**

**DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 26, 2023.**

<b>Foreign language that can be used for examinations</b>	Italian or English	
<b>Evaluation Criteria of qualifications</b> <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Graduation mark: from 95 to 99 from 100 to 101 from 102 to 104 105 106 107 108 109 110 and 110 cum laude  For applicants with not yet obtained degree only the average of the exams regarding the academic title needed to access to the PhD programme will be evaluated: from 25 to25,99 from 26 to25 26,99 from 27 to25 27,99 from 28 to25 28,99 from 29 to25 29,99 110 and 110 cum laude	1 point 3 points 4 points 5 points 6 points 7 points 8 points 9 points 10 points  1 point 4 points 6 points 8 points 9 points 10 points
	Research project	20 points
<b>Oral examination</b>	The oral examination could be carried out in Italian or in English. It will consist of a discussion about the the to the Research project ad general topic referred to the scientific domain (SSD) selected. The interview will be evaluated according to the following criteria: level of knowledge of the themes of the proposed project; critical presentation skills; suitable use of legal language. The oral examiantion will also assess the knowledge of English language.	
<b>Calendar of the oral examination</b>	<b>Date</b>	<b>September 18, 2023</b>
	<b>Time</b>	<b>11:00 AM</b>
	<b>Place</b>	University of Udine, Department of Legal Science (DISG), via Treppo 18, 33100 Udine, ITALY



**TABLE 2 – PhD Programme in LAW AND INNOVATION IN THE EUROPEAN LEGAL SPACE**

		Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid identification document for admission to the oral examination.
RESEARCH TOPIC		
Title	Trajectory S4	FVG Regional impact
1. Artificial intelligence in healthcare. Application profiles and civil liability	Sustainable Smart Specialisation Strategy (S4), Area di specializzazione "Salute, Qualità della vita, Agroalimentare e Bioeconomia", Traiettorie 2: Soluzioni e sistemi biomedicali innovativi: sviluppo integrato di dispositivi medici"	Also in the FVG Region, Artificial Intelligence (AI) techniques are having an increasingly widespread use in the health sector, for the performance of activities of a clinical, rehabilitation-prosthetic and welfare nature. Think, among other things, of imaging techniques, capable of standardizing acquisition protocols, collecting and comparing a large amount of health data, of all telemedicine tools, as well as the provision of medical services through robotic devices. In general, the growing diffusion of artificial intelligence in the medical field has improved the level of efficiency in the provision of healthcare services, reducing the risk of error by human personnel and, in parallel, increasing the degree of safety of treatments. In addition to the undoubted advantages listed above, the use of AI raises new legal problems and not indifferent risk profiles, in relation, among other things, to the processing of personal data, the reshaping of the doctor-patient-health facility relationship (due to the presence of a "third" body, the AI), to civil liability profiles. The research project for a doctoral scholarship will have to analyze these issues in the light, in particular, of the provisions of the Gelli-Bianco law, of the evolutionary interpretation of the civil liability hypotheses contained in the civil code, of the legislation on the processing of personal data, and taking into account the regulatory evolutions at European and supranational level, in terms of product liability AI.



**TABLE 3 – PhD Programme in COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE**

<b>THE PhD PROGRAMME</b>	
<b>Administrative Location</b>	University of Udine - Department of Mathematics, Computer Science and Physics (DMIF) – via delle Scienze 206, 33100 Udine, Italy (+39 0432 558400).
<b>Associated Location</b>	Fondazione Bruno Kessler – 77 via Santa Croce, 38122 Trento (TN), Italy
<b>Location for Training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Federico Fontana – University of Udine (coordinatore.iai@liste.uniud.it)
<b>Programme duration</b>	3 years
<b>Curriculum</b>	-
<b>Research topics</b>	<ul style="list-style-type: none"> <li>- Acoustic scene analysis and Machine listening</li> <li>- Algorithms</li> <li>- Artificial intelligence in agrifood</li> <li>- Automatic planning and scheduling</li> <li>- Autonomous systems</li> <li>- Blockchain and Digital ledger technologies</li> <li>- Computational biology and Bioinformatics</li> <li>- Computational intelligence and Optimization</li> <li>- Computer vision</li> <li>- Crowdsourcing and Human-in-the-loop AI</li> <li>- Cyber-security</li> <li>- Data science and Big data analytics</li> <li>- Digital Humanities</li> <li>- 3D digitalization with Artificial intelligence</li> <li>- Distributed systems: models and applications</li> <li>- Formal methods and Automatic verification</li> <li>- Human-Computer interaction, Auditory-tactile interfaces</li> <li>- Knowledge representation and Automatic reasoning</li> <li>- Information retrieval</li> <li>- Internet of things: platforms and technologies</li> <li>- Logics in computer science</li> <li>- Machine learning and Deep learning</li> <li>- Medical informatics, Tele-medicine and e-Health</li> <li>- Methodologies, languages and techniques for problem solving in artificial intelligence</li> <li>- Natural language processing</li> <li>- Predictive monitoring, diagnostics and maintenance</li> <li>- Social systems and Recommendation systems</li> <li>- Software engineering</li> <li>- Virtual reality, Serious games.</li> </ul>
<b>Research programs</b>	Decided by the Teaching Board within the PhD programme Research topics.
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/computer-science-and-artificial-intelligence/ph-d-programme/computer-science-and-artificial-intelligence?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/computer-science-and-artificial-intelligence/ph-d-programme/computer-science-and-artificial-intelligence?set_language=en</a> <a href="https://www.dmif.uniud.it/dottorato/iai/">https://www.dmif.uniud.it/dottorato/iai/</a> <a href="https://phd.fbk.eu/">https://phd.fbk.eu/</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea Specialistica/Magistrale (ex DM 509/1999 and Decree DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	English

<b>DOCUMENTS AND TITLES TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents (Art. 5 of the Call)</b>	1. Certification issued by the University or, if the Candidate is a European Union citizen (refer to art. 5 paragraph 5 of the Call), self-certification of the academic title (already



**TABLE 3 – PhD Programme in COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE**

	<p>awarded, or to be issued by October 31, 2023) needed for admission to the PhD programme, with candidate's grade and highest possible grade;</p> <p>2. Curriculum vitae et studiorum, dated and signed;</p> <p>3. Copy of a valid identity document (citizens of countries not belonging to the European Union: copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</p> <p>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</p>
Optionally documents that will be evaluated if presented (Art. 5 of the Call)	<p>1. Publications (max 3);</p> <p>2. Recommendation letters (max 2) written by university professors, scientific researchers or other experts in the specific research topics (art. 6 of the Call);</p> <p>3. Certification issued by the University or, if the Candidate is a European Union citizen (refer to art. 5 paragraph 5 of the Call), self-certification of the exams (a list with: grade for each exam, average grade, highest possible grade) passed during the Laurea Specialistica/Magistrale programmes or the Italian programmes ante D.M. 509/99 or during the foreign academic master programmes;</p> <p>4. Certification issued by the University or, if the Candidate is a European Union citizen (refer to art. 5 paragraph 5 of the Call), self-certification of the academic title and the exams (a list with: grade for each exam, average grade, highest possible grade) passed during the Italian Laurea Triennale or equivalent foreign academic title (bachelor);</p> <p>5. Abstract in Italian or English language (between 15.000 and 25.000 characters, spaces included) of the master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme, signed by the thesis Supervisor or self-certified. The abstract must be submitted also by Applicants who are not graduated on the expiration date of this Call.</p>
All titles must be presented exclusively in PDF format, dated and signed by the candidate.	

**SELECTION COMMITTEE**

<b>Appointed Members</b>	Vincenzo Della Mea – associate professor – University of Udine Federico Fontana – associate professor – University of Udine Giuseppe Serra – associate professor – University of Udine
<b>Alternate Members</b>	Christian Micheloni – full professor – University of Udine Carlo Drioli – associate professor – University of Udine

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

**Available positions: 1**

Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topics
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	<p>1. Extended Reality for the cultural heritage and promotion of the Friuli Venezia Giulia territory</p> <p>2. Diagnosis of dysphonia and laryngeal pathologies using advanced numerical models of phonation and AI techniques</p> <p>3. Computer Vision for Environmental River Analysis (COVER)</p> <p>4. The role of new technologies in the Green Deal: more efficient models for Artificial Intelligence and Deep Learning</p>



**TABLE 3 – PhD Programme in COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE**

Competition procedure and schedule		
<p>Qualifications evaluation and oral examination.</p> <p>For the evaluation of applicants' attitude for scientific research and their basic skills before the course program, the Selection Committee can attribute up to 100 points to each applicant: at most 30 points to the titles and at most 70 points to the oral examination. The applicant is admitted to the oral examination if he/she scores at least 18 points for the titles. The oral examination is passed by scoring at least 49 points. The applicant is eligible for the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in in the oral examination will be added to the points of the titles.</p> <p>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within <b>September 12, 2023</b></p> <p>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within <b>September 29, 2023</b></p>		
Foreign language that can be used for examination	Italian or English	
Evaluation of the titles	Curriculum vitae et studiorum, academic title, exams and abstract of master thesis	Max 18 points
	Research project, scientific publications and Referees' recommendation letters	Max 12 points
Oral examination	Starting score bonus	At most 2/3 of the total score obtained from the evaluation of the titles
	Interview about titles, previous career and research project also aimed at understanding the Applicant's knowledge about fundamental topics in computer science and artificial intelligence, as well as his or her full eligibility to receive, if preferred, a scholarship funded by external institutions. Reading and understanding a short scientific text in English.	Max 50 points
Calendar of the oral examination	<b>Date</b>	<b>September 21, 2023</b>
	<b>Time</b>	<b>2:30 PM</b>
	<b>Place</b>	Department of Mathematics, Computer Science and Physics, (DMIF) "Sala Riunioni" – via delle Scienze 206, 33100 Udine <a href="https://www.dmif.uniud.it/il-dipartimento/sedi/">https://www.dmif.uniud.it/il-dipartimento/sedi/</a>
	The oral examination may be organized across more than one day. Interviews online are allowed upon motivated request and within the Call provisions (art. 8 p.4 of the Call). Applicants must exhibit a valid personal identification document for admission to the oral examination.	

RESEARCH TOPICS		
Title	"S4 Trajectory"	FVG Regional impact
1. Extended reality for the cultural heritage and the promotion of the Friuli Venezia Giulia area	Research Development Technological Innovation for Cultural and Creative Enterprises (CCI), Area "Cultural heritage, design, creativity industry, tourism"	The research activity will have to explore the different technologies that fall within the extended reality (virtual reality, augmented reality and mixed reality) and design solutions for the enhancement of the cultural heritage and the promotion of the Friuli Venezia Giulia territory.
2. Diagnosis of dysphony and laryngeal pathologies using advanced numerical models of phonation and AI techniques.	Diagnosis of hoarseness and laryngeal pathologies using advanced numerical models of phonation and AI techniques.	The research program has as its objective the study of numerical models of the phonation organs, and in particular of the vocal cords, for the design of medical devices aimed at the diagnosis, treatment and rehabilitation of laryngeal pathologies and vocal cord dysfunctions. The study aims to address the development of new integrated solutions by resorting to knowledge in the field of digital imaging diagnostics and acoustic analysis of the voice using numerical models of phonation organs. As part of the study of investigation methods, Artificial Intelligence will be integrated with phonation models and analysis algorithms in order to improve the adaptation of models to clinical observations and to produce diagnoses based on analysis results and interpretation of the data that the models can in turn provide. From a methodological point of view, the project will benefit from access to Big Medical Data databases and repositories and from the possibility of exploiting the computing resources of the Cloud High Performance Computing



**TABLE 3 – PhD Programme in COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE**

		<p>(HPC) Data Center for the development of complex numerical models public and private, mainly regional.</p> <p>The project will also analyze the possibilities of integrating such a diagnostic system within regional healthcare and research structures.</p>
<p>3. Computer Vision for Environmental River Analysis (COVER)</p>	<p>SMART MOBILITY: intelligent technologies, systems and solutions for ships, shipyards, ports and their land connections</p>	<p>Friuli Venezia Giulia is crossed by several rivers, including the Tagliamento, the Isonzo and the Natisone. These rivers are important for the maritime sector and the strategic position of the region. The Tagliamento provides irrigation for agriculture and habitat for various fish species. The Soča River forms part of the border between Italy and Slovenia, and its valley contains historic battle sites from World War I. The Natisone valley contains archaeological sites of ancient Roman settlements. These rivers and their valleys are essential for the transport, trade and development of the Friuli-Venezia Giulia region.</p> <p>Discovering and preserving the delicate balance of riverine fish habitats while driving regional development is a paramount challenge in our region. To achieve this, we rely on cutting-edge riverine fish habitat models that predict the perfect locations for different species based on their relationship with environmental conditions. These models integrate a comprehensive understanding of the river's hydromorphology, the biological needs of the target species, and the intricate connection between habitat availability and flow conditions.</p> <p>However, traditional methods of surveying these habitats are slow, complex, and costly. Even with extensive efforts, these only provide a limited understanding of the upstream and lateral river processes at play.</p> <p>The study aims to exploit the power of drones and computer vision techniques to gather and transform data relevant to habitat modeling. We will analyze sediment distribution and other crucial environmental factors, albeit with some limitations. Astonishingly, these game-changing techniques have yet to be fully utilized in assessing river channel dynamics, particularly for planning and management purposes.</p> <p>The project will explore and introduce groundbreaking deep learning algorithms to showcase their prowess in extracting valuable information from remote sensing data. From classifying landscapes to mapping plant communities and floods. This will allow researchers from other fields to swiftly collect and analyze river data in a semi-automated, non-invasive manner. The project will develop cutting-edge techniques to exploit a vast volumes of images such that the algorithms will be able to unveil intricate details about habitat types, physical parameters, and environmental conditions. This invaluable knowledge will open to the creation of digital river twins, intricate habitat maps, identify critical areas, and assess the impact of water changes.</p> <p>This project proposal aims to actively respond to the trajectory 2. SMART MOBILITY: intelligent technologies, systems and solutions for ships, shipyards, ports and their land connections by acting on 3 relevant points.</p> <p>1) Data-driven life cycle design: The project aims to monitor and analyze riverine fish habitats to maintain their suitability and contribute to regional development. This involves the use of riverine habitat models, which predict the suitability of a location for a species or group of species based on its observed relationship to environmental conditions. These models integrate a hydromorphological description of the river, a biological model of the target species and a description of the relationship between habitat availability and flow conditions. The use of remote sensing techniques and computer vision algorithms can help analyze and extract valuable information from large volumes of images, contributing to the development of digital river twins. This data-driven approach can improve safety, efficiency and functionality while reducing environmental impact and material use.</p> <p>2) Development of digital twins integrating river models with ports/resorts/etc.: Recent project advances in the use of drones and image analysis for data acquisition and transformation are critical for the development of digital twins of the regional port/interport system and its connections. These digital twins, integrated with the maritime environmental system and its monitoring network, can optimize the management of the entire system, also reducing the environmental impact.</p> <p>3) Sharing: The project's attention to the monitoring and analysis of river fish habitats can also contribute to the development of boats for shared tourism purposes. Information extracted from computer vision algorithms can be used to identify critical areas of habitat and assess the impact of water changes. This can help in the design of nautical means, mainly electric, suitable for shared use, accelerating the transition towards the MAAS (mobility as a service) paradigm for nautical tourism. The project therefore combines technological innovation and environmental conservation, contributing to the sustainable development of the Friuli Venezia Giulia region.</p>



**TABLE 3 – PhD Programme in COMPUTER SCIENCE AND ARTIFICIAL INTELLIGENCE**

<p>4. The role of new technologies in the Green Deal: more efficient models for Artificial Intelligence and Deep Learning</p>	<p>Research Development Technological Innovation for Creative Industries</p>	<p>Artificial Intelligence and Deep Learning systems currently represent an emerging and fundamental component for companies in the process of creating new technologies and in the implementation of services and products destined for the market. Currently, these systems are based on extremely complex models, characterized by an impressive number of parameters and require a significant amount of energy to operate.</p> <p>In order to address this issue, the project aims to study and develop new lighter and less energy demanding models, without compromising the performance and accuracy of the results. In particular, techniques for model optimization, the use of data compression algorithms, the implementation of quantization and precision reduction techniques, as well as the adoption of intelligent resource management strategies will be analyzed and developed.</p> <p>The primary objective of these initiatives is to encourage the mitigation of the environmental impact, offering direct support for the achievement of the objectives of the Green Deal promoted by the FVG region.</p>
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**TABLE 4 – PhD Programme INDUSTRIAL AND INFORMATION ENGINEERING**

<b>THE PhD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine, Polytechnic Department of Engineering and Architecture (DPIA) - via delle Scienze 206, 33100 Udine, ITALY (tel. +39 0432 558253)
<b>Associated location</b>	-
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, depending on the scholarship (see art. 11 of the Call) and/or on the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. David Esseni (david.esseni@uniud.it)
<b>Programme duration</b>	3 years
<b>Curricula</b>	<ul style="list-style-type: none"> <li>- New management paradigms and fabrication technologies for competitive enterprises with low environmental impact;</li> <li>- Information and communication technology for the inclusive society;</li> <li>- Design of innovative thermo-electro-mechanical systems and development of advanced methods for the assessment of structural damage and reliability for energy saving;</li> <li>- Mechanical technologies and electronic devices for domotics, medical diagnostic and safety.</li> </ul>
<b>Research topics</b>	<p><i>Curriculum 1 - New management paradigms and fabrication technologies for competitive enterprises with low environmental impact</i></p> <ul style="list-style-type: none"> <li>- Lean management, agile project management, operations management, production planning and control, supply chain management, purchasing and supplier management, innovation management, new product development, global manufacturing, complexity management, performance measurement systems;</li> <li>- System and machinery efficiency for industrial production;</li> <li>- Cognitive features of products development in view of CAD-PLM technologies;</li> <li>- Characteristics and applicability of emerging prototyping methodologies (augmented reality, functional mock-up, interaction design, etc.);</li> <li>- Smart logistics: computation models and algorithms;</li> <li>- New technologies for the manufacturing of innovative materials;</li> <li>- Systems for monitoring and control of machine tools;</li> <li>- Methodologies for the design of automatic systems with a high energy and production efficiency. Approaches to system and product innovation;</li> <li>- Robotic systems for the industrial sustainability</li> <li>- Robotic systems for production and energy efficiency</li> </ul> <p><i>Curriculum 2 - Information and communication technology for the inclusive society</i></p> <ul style="list-style-type: none"> <li>- Nano-electronic devices (MOSFETs, Steep Slope, etc.) for energy efficient and high performance electronics. Non volatile Memories for massive 3D integration (Flash, charge trap);</li> <li>- Advanced electron devices based on innovative materials and architectures in the Beyond CMOS and More than Moore domains: graphene, 2D crystals, III-V compound semiconductor devices;</li> <li>- Semi-classical (BTE) and quantum mechanical (NEGF) simulation of nanoelectronics devices;</li> <li>- Integrated circuit design for energy efficient communications, energy conversion and management;</li> <li>- Innovative communication paradigms and systems: systems with multiple antennae, distributed communication systems, HW and SW architectures for telecommunications;</li> <li>- Multimedia signals processing and analysis: video and image encoding, video streaming based on peer-to-peer networks, joint source/channel encoding, compressive sensing;</li> <li>- Test and development of metaheuristic algorithms for combinatorial problems;</li> <li>- Pervasive computing, cloud computing, overlay networking, distributed computing in miscellaneous networks of computers;</li> <li>- Artificial vision system, virtual sound, machine learning;</li> <li>- Wireless communication systems and networks, signal processing for communication, physical substrate algorithms, transmission system algorithms.</li> <li>- Data and Information Fusion.</li> </ul> <p><i>Curriculum 3 – Design of innovative thermo-electro-mechanical systems and development of advanced methods for the assessment of structural damage and reliability for energy saving</i></p>





**TABLE 4 – PhD Programme INDUSTRIAL AND INFORMATION ENGINEERING**

	<ul style="list-style-type: none"> <li>- Energy harvesting systems for self powered, smart, distributed sensors;</li> <li>- Electro-mechanical devices for innovative production and storage energy systems;</li> <li>- New paradigms, systems, technologies for surface and air transportation vehicles with low energy consumption;</li> <li>- Integrated power electronics for industrial plants and machinery;</li> <li>- Electric drivers and converters for distributed electric generation and co-generation systems (photovoltaic, wind, etc.);</li> <li>- On board electronics: terrestrial and satellite localisation and navigation systems; communication networks and systems;</li> <li>- Green mechatronics: mechatronics for energy saving;</li> <li>- Design methodologies for materials handling systems characterised by low environmental impact;</li> <li>- Holistic design of lightweight structures for low emissions and low energy consumption vehicles;</li> <li>- Design of energy efficiency industrial plants;</li> <li>- Stress and strain analysis of materials and structures subjected to time-dependant deformation processes;</li> <li>- Methods for structural integrity design and verification;</li> <li>- Developments of damage-tolerant design methods;</li> <li>- Multi-physics analyses for the evaluation of the stress/strain state in materials and engineering structures;</li> <li>- Micromechanical damaging processes in materials;</li> <li>- Behaviour characterisation and modelling of materials processed by advanced manufacturing techniques;</li> <li>- Modeling and control of mechanical and mechatronic systems;</li> <li>- Modeling and control of vibrations in mechanical systems;</li> <li>- Numerical modeling for the simulation of electromagnetic devices and fields.</li> </ul> <p><i>Curriculum 4 – Mechanical technologies and electronic devices for domotics, medical diagnostic and safety</i></p> <ul style="list-style-type: none"> <li>- Smart systems and technologies for home, working and leisure environments</li> <li>- Systems for safety at work, on the road, at home; systems for the management of home assistance activities;</li> <li>- Sensors, devices and instrumentation for medical care and tests and for the support of the elderly; systems for the planning and support of hospital activities;</li> <li>- Innovative paradigms for the interaction of domotics, surgery and security devices;</li> <li>- Passive and active control of noise and vibration for industrial, home and surface-air transport vehicles applications;</li> <li>- Devices and instrumentation for the detection of biomedical parameters: nanosensors</li> <li>- Robots for elderly and disable people assistance;</li> <li>- Robots for surgery applications;</li> <li>- Large scale tri-dimensional image modelling, automatic synthesis of binocular video flows from monocular sources;</li> <li>- Geophysics; seismic data acquisition, vulcanology, geostatics, seismic risk evaluation.</li> </ul>
<b>Research programs</b>	Research programs are selected by the Teaching Board among the topics offered by the curricula.
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/industrial-and-information-engineering/ph-d-programme/industrial-and-information-engineering?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/industrial-and-information-engineering/ph-d-programme/industrial-and-information-engineering?set_language=en</a> <a href="https://phd.diegm.uniud.it/iie-phd/">https://phd.diegm.uniud.it/iie-phd/</a>

**ADMISSION REQUIREMENTS**

<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea specialistica/magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	English

**DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION**

<b>Compulsory documents (art. 5 of the Call)</b>	1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale
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**TABLE 4 – PhD Programme INDUSTRIAL AND INFORMATION ENGINEERING**

	<p>programmes or during the Italian programmes before D.M. 509/99 or during the foreign academic programmes;</p> <p>2. Curriculum vitae et studiorum, dated and signed;</p> <p>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</p> <p>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</p>
<b>Optional documents (art. 5 of the Call)</b>	<p>1. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call can submit an extended abstract in place of the complete thesis, in Italian or English language, signed by themselves and by their thesis Supervisor (approximate limit: 25.000 characters, including spaces);</p> <p>2. Motivational letter by which the applicant explains the reasons for admission to the PhD programme, dated and signed (approximate limit: 2.500 characters, including spaces);</p> <p>3. Publications (max 2);</p> <p>4. Letters of reference (max 2), from university professors, scientific researchers or other experts in the field (art. 6 of the Call).</p>
<b>All titles must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

**SELECTION COMMITTEE**

<b>Appointed members</b>	<p>Ruben Specogna – associate professor – University of Udine          Lauro Snidaro – associate professor – University of Udine          Enrico Salvati – associate professor – University of Udine          Marco Sortino – associate professor – University of Udine          Pietro Romano – full professor – University of Udine</p>
<b>Substitute members</b>	<p>Roberto Rinaldo – full professor – University of Udine          David Esseni – associate professor – University of Udine</p>

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

**Available positions: 1**

<i>Detailed description</i>	<i>N.</i>	<i>Funding</i>	<i>Annual gross amount</i>	<i>Period abroad</i>	<i>Research topic</i>
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	<p>1. Development of innovative systems for automation, digitisation, monitoring of production processes, with a focus on sustainability and circularity, such as 'Green transition', 'Digital transition' and 'Resilience'.</p> <p>2. Digital imaging diagnostics in the human and pre-clinical fields; augmented and virtual reality, robotics and artificial intelligence (AI)</p>

**Competition procedure and test schedule**

Evaluation of qualifications and oral examination.

For the evaluation of applicants' attitude for scientific research and their basic skills to tackle the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. The applicant is admitted to the oral examination if his/her titles receive at least 16 points. The oral examination is passed with at least 49 points. The applicant is eligible to the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles.

**DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 8, 2023.**

**DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.**



**TABLE 4 – PhD Programme INDUSTRIAL AND INFORMATION ENGINEERING**

<b>Foreign language that can be used for examination</b>	Italian or English	
<b>Evaluation Criteria of qualifications</b>	Curriculum vitae et studiorum	10
	Scientific publications	5
	Thesis/Abstract	2
	Letters of reference	4
	Motivational letter for admission to the PhD programme	4
	Research Project	5
<b>Oral examination</b>	<p>The oral examination consists of an individual interview of about 15 minutes aiming to assess the applicant flair to undertake a research doctorate and to carry out the research tasks in the areas of interest for the doctorate.</p> <p>The interview will be assessed considering the following criteria:</p> <p>a) technical and scientific competence in the topics of the doctorate;  b) knowledge of the state of the art for the doctorate curricula;  c) mastery of English language.</p>	
<b>Calendar of the oral examination</b>	<b>Date</b>	<b>September 11, 2023</b>
	<b>Time</b>	<b>09:30 AM</b>
	<b>How to conduct the examination</b>	The oral examination will be held online.
	Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid ID for admission to the oral examination.	

**RESEARCH TOPICS**

<b>Title</b>	<b>Trajectory S4</b>	<b>FVG Regional impact</b>
1. Development of innovative systems for automation, digitisation, monitoring of production processes, with a focus on sustainability and circularity, such as 'Green transition', 'Digital transition' and 'Resilience'.	Intelligent Factory and Sustainable Development of Made in Italy supply chains. In particular: Trajectory 1. Solutions and technologies for product innovation Trajectory 3. Solutions and technologies for process innovation automation, plant control and robotics.	The theme helps to develop and strengthen integration with the regional production system by improving collaboration with regional companies or research institutions.
2. Digital imaging diagnostics in human and pre-clinical settings; augmented and virtual reality, robotics and artificial intelligence (AI)	Trajectory 2: 'Innovative biomedical solutions and systems: integrated development of medical devices'. Keyword: Health, Diagnostic Imaging, Digital Twin, Big medical Data Keyword, Health, Diagnostic Digital imaging, medical Digital Twin, Big medical data	The theme helps to develop and strengthen integration with the regional production system by improving collaboration with regional companies or research institutions.



**TABLE 5 – PhD Programme in MOLECULAR MEDICINE**

<b>THE PhD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine, Department of Medical Area (DAME) –via Colugna 50, 33100 Udine, ITALY (tel. +39 0432 494301).
<b>Associated location</b>	C.R.O. - Centro di Riferimento Oncologico (National Cancer Institute Aviano) – via Franco Gallini 2, 33081 Aviano (PN) ITALY.
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Alessandra Corazza (alessandra.corazza@uniud.it)
<b>Programme duration</b>	3 years
<b>Curriculum</b>	-
<b>Research topics</b>	<ul style="list-style-type: none"> <li>– Cancer: from molecular oncology to innovative therapies;</li> <li>– Immunity and inflammation;</li> <li>– Molecular mechanisms of cellular senescence and therapeutic perspectives;</li> <li>– Molecular pathogenesis of protein misfolding diseases</li> </ul>
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/biomedical-sciences-and-biotechnology/ph-d-programme/biomedical-science-and-biotechnology?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/biomedical-sciences-and-biotechnology/ph-d-programme/biomedical-science-and-biotechnology?set_language=en</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea Specialistica/Magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	English

<b>DOCUMENTS AND TITLES TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale programmes or during the Italian programmes before D.M. 509/99 or during the foreign academic programmes;</li> <li>2. Curriculum vitae et studiorum, dated and signed, with emphasis on pre-doctoral experiences and on thesis activity (description of techniques acquired, personal contribution, etc.);</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>
<b>Optional documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call can submit an extended abstract in place of the complete thesis, in Italian or English language, signed by themselves and by their thesis Supervisor (approximate limit: 25.000 characters, spaces included);</li> <li>2. Motivation letter by which the applicant explains the reasons for admission to the PhD programme, dated and signed (approximate limit: 1.000 characters, spaces included);</li> <li>3. Publications (max 2);</li> <li>4. Letters of reference (max 2) written by university professors, scientific researchers or other experts in the field (art. 6 of the Call).</li> </ol>

<b>SELECTION COMMITTEE</b>	
<b>Appointed Members</b>	Claudio Brancolini – full professor – University of Udine Alessandra Corazza – associate professor – University of Udine Luca Quartuccio – associate professor – University of Udine
<b>Substitute Members</b>	Gianluca Tell – full professor – University of Udine Giovanna Lippe – associate professor – University of Udine Barbara Frossi - associate professor – University of Udine



**TABLE 5 – PhD Programme in MOLECULAR MEDICINE**

ADMISSION					
GENERAL COMPETITION (art. 8 of the Call for Applications)					
Available positions: 1					
Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topic
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	1. Morphological and functional characterisation of salivary gland organoids from patients with Sjögren's syndrome and development of an integrated ex vivo cellular model of drug response. 2. Role of transthyretin dynamics in ATTR amyloidosis studied by nuclear magnetic resonance. The role of proteases and mechanical forces.
Competition procedure and test schedule					
<p>Evaluation of qualifications and oral examination. For the evaluation of applicants' attitude for scientific research and their basic skills to tackle the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. Applicant is admitted to the oral examination if his/her titles receive at least 15 points. The oral examination is passed with at least 49 points. The applicant is eligible to the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles.</p> <p><b>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 11, 2023.</b> <b>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.</b></p>					
Foreign language that can be used for examination	Italian or English				
Evaluation Criteria of qualifications <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum vitae				2
	Scientific publications				4
	Thesis/Abstract				3
	Letters of reference				2
	Motivation letter for admission to the PhD programme				2
	Grades reported in the exams taken in the undergraduate programmes				7
	Masters, additional training courses, experiences abroad, etc. etc				2
Research project: - Central hypothesis - Objectives - Research Design				8	
Oral examination	Part of the oral examination will be in English.				
Calendar of the oral examination	Date	September 19, 2023			
	Time	11:00 AM			
	Place	Department of Medical Area (DAME), Seminar Room – Piazzale Kolbe 4, 33100 Udine ITALY			
	Based on the number of applicants, the oral examination may take more than one day. Applicants must exhibit a valid ID for admission to the oral examination.				

RESEARCH TOPICS		
Title	Trajectory S4	FVG Regional impact
1. Development of innovative systems for automation, digitisation, monitoring of production processes, with a focus on sustainability and circularity, such as 'Green	The pathogenetic hallmarks of Primary Sjögren's syndrome (pSS) are the immune-mediated destruction of exocrine glands and B-cell hyperactivation, which are responsible for the development of sicca syndrome and of the highest risk of lymphoproliferative disease among autoimmune diseases. In pSS, salivary epithelial cells show an active role in the initiation and reiteration of the immune-mediated damage. Up to date, scarce evidence of effective treatment of sicca syndrome and salivary gland function	The development of these new drugs may involve the structures of the Regional Health System in the first instance. The benefit for patients derives from the possibility of having a highly customised therapy, which is currently unavailable, with an improvement in the quality of life and at the same time an economic saving



**TABLE 5 – PhD Programme in MOLECULAR MEDICINE**

<p>transition', 'Digital transition' and 'Resilience'.</p>	<p>restoration is found in literature. A tailored therapy targeting both salivary gland inflammation and the aberrating epithelial biochemical mechanisms might be an effective strategy. Therefore, obtainment of functional salivary glands organoids might shed light on disease pathogenesis and allow testing of new pharmacological agents. To the best of our knowledge, no data on the application of human salivary gland organoids specifically for testing drugs effective on xerostomia in pSS are found in literature. Preliminary results confirm the possibility of culturing vital organoids obtained from salivary glands of pSS patients at different lymphoproliferative stages and by different harvesting techniques. The obtainment of vital organoids opens also to the opportunity of evaluating the interaction between activated epithelium and immune system throughout the lymphoproliferative evolution of the disease and of testing innovative drugs. This project fully fits into the 'Health, Quality of Life, Agrifood and Bioeconomy' area of the Regional Strategy for the smart specialisation of Friuli Venezia Giulia and in particular into the trajectory 'Solutions and systems for innovative therapies: integrated development of drugs and biopharmaceuticals (biotech) for a personalised and sustainable medicine'. Indeed, the use of organoids in this context is highly innovative and can provide an appropriate disease model not only for understanding the mechanisms, but also for testing the efficacy of potential drugs. The development of these new drugs may involve the structures of the Regional Health System in the first instance. The benefit for patients derives from the possibility of having a highly personalised therapy, which is currently unavailable, with an improvement in quality of life and at the same time an economic saving for the health system (reduced hospitalisation, greater effectiveness of treatment).</p>	<p>for the health system (reduced hospitalisation, greater effectiveness of treatment). The latter can be developed, once tested, in collaboration with local pharmaceutical companies.</p>
<p>1. Role of transthyretin dynamics in ATTR amyloidosis studied by nuclear magnetic resonance. The role of proteases and mechanical forces</p>	<p>The aim of the project is to elucidate the pathogenesis of systemic amyloidosis caused by human transthyretin (TTR), which in most cases affects the heart. One proposed hypothesis to explain fibril formation involves the simultaneous action of proteases and mechanical forces. This hypothesis has recently been successfully tested in a transgenic mouse expressing a highly aggressive TTR variant. The project will use nuclear magnetic resonance to investigate at the atomic level how TTR structure and dynamics are influenced by the two players, proteases and mechanical forces. This project is fully in line with the 'Health, Quality of Life, Agrifood and Bioeconomy' area of the Regional Strategy for the Intelligent Specialisation of Friuli Venezia Giulia and in particular with the trajectory 'Solutions and systems for innovative therapies: integrated development of drugs and biopharmaceuticals (biotech) for personalised and sustainable medicine'. Indeed, the introduction of mechanical forces together with proteolytic enzymes in in vitro assays aims to reproduce the processes that occur at the cardiac level where the mechanical contraction forces in the myocardium and at the level of the heart valves are of considerable intensity. The development of in vitro systems that mimic the complexity in vivo ever more closely is what may lead to the development of personalised drugs. Patients stand to gain from the potential of receiving a remarkably tailored treatment, which is presently inaccessible. This personalized therapy can enhance their quality of life while also generating cost savings for the health system, such as reduced hospitalization and increased treatment efficacy.</p>	<p>Lo sviluppo di sistemi in vitro che mimino in maniera sempre più vicina la complessità in vivo è ciò che potrà portare lo sviluppo di farmaci personalizzati. I pazienti potranno avere la possibilità di ricevere un trattamento personalizzato, attualmente non disponibile. Questa terapia personalizzata può migliorare la loro qualità di vita, generando al contempo risparmi per il sistema sanitario, come la riduzione dei ricoveri e l'aumento dell'efficacia del trattamento.</p>



**TABLE 6 – PhD Programme in FOOD SCIENCE**

<b>THE PhD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine - Department of Agricultural, Food, Environmental and Animal Sciences (DI4A) – via delle Scienze n. 206, 33100 Udine, ITALY (tel. +39 0432 558600)
<b>Associated location</b>	-
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at the administrative programme location, other locations of the University of Udine or financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Walter Baratta (walter.baratta@uniud.it)
<b>Programme duration</b>	3 years
<b>Curriculum</b>	-
<b>Research programs</b>	<ul style="list-style-type: none"> <li>- Chemical, physical, microbiological, nutritional and sensory aspects of foods</li> <li>- Innovative technological approaches to ensure safety, improve quality and extend the shelf-life of foods</li> <li>- Strategies to improve the nutritional and technological functionality of ingredients and foods</li> <li>- Innovative food and process development</li> <li>- Relationship between the structure of foods and their sensory, nutritional and technological performance</li> <li>- Relationship between diet and health</li> <li>- Monitoring, prevention and reduction of biological, chemical and physical contamination</li> <li>- Optimisation and study of microbial fermentation for food and beverage production</li> <li>- Relationships/interactions between food microbiota and human microbiota/microbiome</li> <li>- Genetic and physiological characterisation of microbial strains of food interest</li> <li>- Development and validation of innovative methods and instruments (analytical devices, green sensors and biosensors) to define food quality, traceability and safety</li> <li>- Development of rapid methods for in situ analysis and monitoring of biological processes in foodstuffs</li> <li>- Development of environmentally sustainable packaging</li> <li>- Improving sustainability in the food sector</li> <li>- Use of waste from the agro-food chain for the production of food / ingredients / bioactive molecules / packaging materials</li> <li>- Reduction of environmental impact, emission of pollutants and energy savings in the food sector.</li> </ul>
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/scienze-degli-alimenti/ph-d-programme/scienze-degli-alimenti?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/scienze-degli-alimenti/ph-d-programme/scienze-degli-alimenti?set_language=en</a>
<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea Specialistica/Magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	English
<b>DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale programmes, or during the Italian programmes before D.M. 509/99 or during the foreign academic programmes;</li> <li>2. Curriculum vitae et studiorum, dated and signed;</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>



**TABLE 6 – PhD Programme in FOOD SCIENCE**

<b>Optional documents</b> (art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Master thesis (“Tesi di laurea”) associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call can submit an extended abstract in place of the complete thesis, in Italian or English language signed by themselves and by their thesis Supervisor (approximate limit: 25.000 characters, spaces included);</li> <li>2. Publications (max 2);</li> <li>3. Letters of reference (max 2), from university professors, scientific researchers or other experts in the field (art. 6 of the Call).</li> </ol>
<b>All qualifications must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

**SELECTION COMMITTEE**

<b>Appointed members</b>	Prof. Walter Baratta – full professor – Università di Udine Prof. Giuseppe Comi – full professor – Università di Udine Prof. Piergiorgio Comuzzo – associate professor – Università di Udine Prof.ssa Sabrina Moret – associate professor – Università di Udine
<b>Substitute members</b>	Prof.ssa Lucilla Iacumin – full professor – Università di Udine Prof. Andrea Venerando – associate professor – Università di Udine

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

**Available positions: 1**

Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topic
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	<ol style="list-style-type: none"> <li>1. Development of innovative functional foods from residues resulting from the processing of foods of plant origin and of interest to the FVG region</li> <li>2. Selection and development of indigenous oenological yeasts for terroir characterisation of regional wines and bioprotection with the aim of reducing energy inputs and chemical additives for wine production</li> </ol>

**Competition procedure and test schedule**

<p>Evaluation of titles and oral examination.          For the evaluation of applicants’ attitude for scientific research and their basic skills to tackle the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. Applicant is admitted to the oral examination if his/her titles receive at least 21 points. The oral examination is passed with at least 49 points. The applicant is eligible to the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles.  <b>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 12, 2023.</b>  <b>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.</b></p>		
<b>Foreign language that can be used for examination</b>	Italian or English	
<b>Evaluation Criteria of qualifications</b> <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum vitae et studiorum	10
	Research project	14
	Scientific publications	2
	Thesis/Abstract	2
	Letters of reference	2
<b>Oral examination</b>	Part of the oral examination will be in English.	
<b>Calendar of the oral examination</b>	Date	<b>September 21, 2023</b>
	Time	<b>2:30 AM</b>





**TABLE 6 – PhD Programme in FOOD SCIENCE**

<b>Place</b>	Department of Agricultural, Food, Environmental and Animal Sciences (DI4A) – via Sondrio 2/A, 33100 Udine
Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid ID for admission to the oral examination.	

RESEARCH TOPICS		
Title	Trajectory S4	FVG Regional impact
1. Development of innovative functional foods from residues resulting from food processing operations of plant origin and of interest to the FVG region	This research theme complies with the <i>intervention line 1</i> (systems and solutions for the maintenance of health: nutraceutical, food supplements, functional foods, medical nutrition functional cosmetics) and <i>intervention line 5</i> (development of an integrated bio-economical approach for the increase of the value of the local resources favouring the security and safety of the productions and the resilience of the chain value of the regional business system, through the integration of interventions for innovation of a sustainable and circular food-chain able to deliver value to consumers) of the area 3.3.4 Health, quality of life, Agro-food and bioeconomy of the Sustainable Smart Specialization Strategy (S4) of the FVG region.	The research results will contribute for the development of the food-production sector of the region FVG by favoring the integration between food companies producing and commercializing food ingredients, food supplements and functional foods with health promoting capacity, with those transforming plant-based food and beverages. The final objective is to valorize wasted materials deriving from the processes of plant-based foods studying the feasibility of their conversion into sustainable and high-value ingredients, thus favoring the circular economy. The development of innovative health promoting ingredients from food waste typical of the local productions would allow food industries of FVG region to increase their competitiveness in the functional food sector
2. Selection and development of indigenous oenological yeasts for terroir characterisation of regional wines and bioprotection with the aim of reducing energy inputs and chemical additives for wine production	This research theme is in line with Trajectory 5 (Developing an integrated bio-economic approach to increase the value of territorial resources by fostering the security of production and the resilience of value chains of the regional entrepreneurial system through the integration of innovation interventions on sustainable and circular supply chains capable of bringing value to the consumer) and Trajectory 6 (Enhancing the territory's potential by supporting the development of smart and resilient local communities in full respect of biodiversity, mountain, rural and coastal ecosystems and integrating the concepts of circularity and sustainability of extended bio-economic value chains into economic, social and environmental development) of Area 3. 3.4 Health, Quality of Life, Agrifood and Bioeconomy of the Sustainable Smart Specialisation Strategy (S4) of the FVG region.	The project aims, in agreement with UNI. DOC FVG, to improve the impact of territorial wine production on the international market by playing on two fronts: 1) on the one hand, the use of indigenous yeasts, isolated from the territory's vineyards themselves to give even more of a characterising imprint of the territory to the wine produced, in the maintenance of biodiversity; on the other hand, the selection will aim at choosing yeasts that produce optimal aromatic profiles at higher temperatures than those currently used, allowing a saving of frigor during vinification, which translates into more sustainable production (< CO2 produced) and a reduction in production costs; 2) the selection of strains that allow a bioprotection of the product, both allowing a reduction in the use of SO2, and guaranteeing the healthiness of the finished product, considering the problems arising from climate change, which leads to the production of musts and wines with high pH and no longer safe from the proliferation of potential pathogenic microorganisms (Staphylococcus aureus).



**TABLE 7 – PhD Programme in ENVIRONMENTAL AND ENERGY ENGINEERING SCIENCE**

THE PhD PROGRAMME	
Administrative location	University of Udine - Polytechnic Department of Engineering and Architecture (DPIA) - via delle Scienze 206, 33100 Udine, ITALY (tel. +39 0432 558253).
Associated location	-
Location for training, teaching and research activity	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, financial supporter's location (if the financial supporter is an external institution).
Coordinator	Prof. Cristian Marchioli (cristian.marchioli@uniud.it)
Programme duration	3 years
Curriculum	-
Research topics	<ul style="list-style-type: none"> <li>- Energy efficiency and sustainability of machines, processes and plants;</li> <li>- Materials for energy and/or environmental applications;</li> <li>- Catalysis Science and Technology;</li> <li>- Energy transport, conversion, storage and distribution;</li> <li>- Safety engineering and emergency management;</li> <li>- Chemical technologies and processes for energy and environment;</li> <li>- Computational transport phenomena;</li> <li>- UNESCO Chair - Safety for Disaster Risk Reduction and Resilience.</li> </ul> <p>The PhD Programme cooperates with the UNESCO Chair in Intersectoral Safety for Disaster Risk Reduction and Resilience.</p>
Course website	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/environmental-and-energy-engineering-science/ph-d-programme/environmental-and-energy-engineering-science?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/environmental-and-energy-engineering-science/ph-d-programme/environmental-and-energy-engineering-science?set_language=en</a> <a href="https://phd.diegm.uniud.it/ees-phd/">https://phd.diegm.uniud.it/ees-phd/</a>

ADMISSION REQUIREMENTS	
Required degree	Italian Laurea (before DM 509/99) or Italian Laurea specialistica/magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
Knowledge of the following foreign language	English

DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION	
<b>Compulsory documents</b> (art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale programmes or during the Italian programmes before D.M. 509/99 or during the foreign academic programmes;</li> <li>2. Curriculum vitae et studiorum, dated and signed;</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>
<b>Optional documents</b> (art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call can submit an extended abstract in place of the complete thesis, in Italian or English language, signed by themselves and by their thesis Supervisor (approximate limit 10.000 characters, spaces included);</li> <li>2. Motivational letter, dated and signed, by which the applicant explains the reasons for admission to the PhD programme (approximate limit 2.500 characters, spaces included);</li> <li>3. Publications (max 2);</li> </ol>



**TABLE 7 – PhD Programme in ENVIRONMENTAL AND ENERGY ENGINEERING SCIENCE**

	4. Letters of reference (max 2), from university professors, scientific researchers or other experts in the field (art. 6 of the Call).
<b>All titles must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

SELECTION COMMITTEE	
<b>Appointed members</b>	Luca Casarsa – associate professor – University of Udine Paola D'Agaro – associate professor – University of Udine Lorenzo Fedrizzi – full professor – University of Udine Stefano Savino – associate professor – University of Udine
<b>Substitute members</b>	Giulio Croce – full professor – University of Udine Sara Colussi – associate professor – University of Udine Damiana Chinese – associate professor – University of Udine

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

Available positions: 1					
Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topic
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16.243.00	max 6 months optional	Mechano-chemical synthesis of nanostructured catalysts for the decomposition of ammonia to hydrogen

**Competition procedure and test schedule**

Evaluation of qualifications and oral examination. For the assessment, which is aimed at ascertaining the candidate's aptitude for scientific research and his/her basic preparation for carrying out the course programme, the Selection Committee has a total of 100 points, of which 30 points for the assessment of qualifications and 70 points for the oral interview. Candidates who score at least 21 points in the assessment of qualifications are admitted to the oral test. A minimum of 49 points is required to pass the oral test. Eligibility for the PhD course is obtained by passing the oral test. For eligible candidates only, the score from the evaluation of qualifications will be added to the score obtained in the oral test. <b>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: on or before September 11, 2023.</b> <b>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: on or before September 29, 2023.</b>		
<b>Foreign language that can be used for examination</b>	Italian or English	
<b>Evaluation Criteria of qualifications</b> <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum studiorum	10
	Curriculum vitae	2
	Research Project	6
	Scientific publications	2
	Thesis/Abstract	3
	Letters of reference	2
	Motivational letter for admission to the PhD programme	5
<b>Oral examination</b>	Interview based on technical, motivational and scientific discussion.	
<b>Calendar of the oral examination</b>	<b>Date</b>	<b>September 20, 2023</b>
	<b>Time</b>	<b>04:00 PM</b>
	<b>Place</b>	Polytechnic Department of Engineering and Architecture (DPIA), Sala Riunioni Verde (Meeting room "Sala Verde") DPIA – via delle scienze 206, 33100 Udine
	Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid ID for admission to the oral examination.	



**TABLE 7 – PhD Programme in ENVIRONMENTAL AND ENERGY ENGINEERING SCIENCE**

RESEARCH TOPICS		
Title	“S4 Trajectory”	FVG Regional impact
Mechano-chemical synthesis of nanostructured catalysts for the decomposition of ammonia to hydrogen	Within the framework of the S4 strategy of the Friuli Venezia Giulia region, the specialisation area concerning 'Energy Transition, Circular Economy and Environmental Sustainability' is of particular importance due to its strategic relevance for regional industrial development.	The research project is part of the so-called 'energy transition technologies', with the aim of studying the feasibility of new sustainable energy vectors, an issue that is now gaining great interest for the industrial sector. The study addresses the evaluation of the catalytic process of ammonia decomposition, which is considered a promising technology for the production of hydrogen. The catalytic decomposition of ammonia is a process that requires interdisciplinary skills in chemistry, materials science and engineering, which will be developed and strengthened during the student's doctoral research project. The research aims to develop nanostructured catalytic materials via mechano-chemical synthesis for the production of hydrogen from ammonia decomposition. The availability of hydrogen from renewable sources to produce clean, i.e. CO2-free, energy is one of the key topics of the energy transition. However, the use of hydrogen as an energy carrier poses a number of problems, especially with regard to transport and storage. Among the various possibilities that are being investigated, its storage in the form of ammonia, a stable molecule that is easily transportable and for which there are already various consolidated transport and storage infrastructures, is a very promising pathway, but it requires active catalysts capable of decomposing the ammonia 'on site' in order to recover the hydrogen. So far, the most active catalysts identified are noble metal-based materials, expensive and considered 'critical raw material' by the European Union. The doctoral project fits into this scenario with the idea of preparing transition metal-based catalysts, which are readily available and less expensive, supported on mixed oxides by mechano-chemical synthesis, thus avoiding the use of solvents and high temperature heat treatment. Dry mechanical synthesis has proven to be a valid method for the preparation of catalysts in a sustainable manner, limiting emissions and waste due to the post-treatment required in wet synthesis procedures. The materials will then be tested for ammonia decomposition in a dedicated plant, and also characterised in collaboration with other regional (e.g. Elettra Sincrotrone laboratories) and international entities. In particular, characterisation will be aimed at obtaining structural, morphological and chemical property information such as reducibility, the presence of surface acid-base sites, and affinity towards nitrogen. It is known in fact that nitrogen, a further product of the decomposition of ammonia, tends to settle on the surface, deactivating the material. In addition to assessing their catalytic activity, their stability and resistance to deactivation will therefore also be considered. The results obtained will be used to further improve the materials in order to obtain stable catalysts capable of decomposing ammonia at low temperatures and with high hydrogen yield.



**TABLE 8 – PhD programme AGRICULTURAL SCIENCES AND BIOTECHNOLOGY**

<b>THE PhD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine - Department of Agricultural, Food, Environmental and Animal Sciences (D14A) – via delle Scienze n. 206, 33100 Udine, ITALY (tel. +39 0432 558600)
<b>Associated location</b>	-
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Francesco Nazzi (francesco.nazzi@uniud.it)
<b>Programme duration</b>	3 years
<b>Curricula</b>	<ul style="list-style-type: none"> <li>- Biology and plant production;</li> <li>- Biology and livestock science;</li> <li>- Biology of pathogens and plant protection.</li> </ul>
	<p><i>Curriculum Biology and plant production</i> A1. Innovative technologies for monitoring coastal marine and transitional ecosystems". (supervisor: F. Boscutti, co-supervisors: E. Braidot, F. Trevisan)</p> <p><i>Curriculum Biology of pathogens and plant protection</i> C1. Research of the genetic mechanisms underlying resistance to Flavescence dorée in grapevines to increase the sustainability of wine production in Northern Italy (supervisor: R. Velasco, co-supervisor: E. Angelini)</p>
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/agricultural-sciences-and-biotechnology/ph-d-programme/agricultural-sciences-and-biotechnology?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-life-science/agricultural-sciences-and-biotechnology/ph-d-programme/agricultural-sciences-and-biotechnology?set_language=en</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea specialistica/magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the call.
<b>Knowledge of the following foreign language</b>	English

<b>DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents</b> (art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian Laurea Specialistica/Magistrale programme or during the Italian programmes before D.M. 509/99 or during the foreign academic programmes;</li> <li>2. Curriculum vitae et studiorum, dated and signed;</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union must attach a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>
<b>Optional documents</b> (art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated by the expiration date of this call can submit an extended abstract in place of the complete thesis, in Italian or English language, signed by themselves and by their thesis Supervisor (approximate limit: 25.000 characters, spaces included);</li> <li>2. Publications (max 2);</li> <li>3. Letters of reference (max 2), from university professors, scientific researchers or other experts in the field (art. 6 of the Call).</li> </ol>
<b>All qualifications must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

<b>SELECTION COMMITTEE</b>	
<b>Appointed members</b>	<p>Elisa Angelini - research manager - CREA Conegliano            Enrico Braidot – associate professor – University of Udine            Emanuele De Paoli - associate professor – University of Udine            Sandy Sgorlon - adjunct professor - University of Udine            Bruno Stefanon -full professor – University of Udine            Sabina Susmel - adjunct professor - University of Udine</p>



**TABLE 8 – PhD programme AGRICULTURAL SCIENCES AND BIOTECHNOLOGY**

<b>Substitute members</b>	Francesco Boscutti - associate professor – University of Udine Elisa Marraccini - associate professor – University of Udine Giuseppe Stradaoli - full professor – University of Udine Francesca Tulli - associate professor – University of Udine Riccardo Velasco – research manager – CREA Conegliano
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**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

**Available positions: 1**

<i>Detailed description</i>	<i>N.</i>	<i>Funding</i>	<i>Annual gross amount</i>	<i>Period abroad</i>	<i>Research topic</i>
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	1. Innovative technologies for monitoring coastal marine and transitional ecosystems 2. Studying the genetic mechanisms underlying grapevine yellows resistance

**Competition procedure and test schedule**

Evaluation of qualifications and oral examination.

For the evaluation of applicants' attitude for scientific research and their basic skills to tackle the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. The applicant is admitted to the oral examination if his/her titles receive at least 21 points. The oral examination is passed with at least 49 points. The applicant is eligible to the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles.

**DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 12, 2023.**

**DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.**

<b>Foreign language that can be used for examination</b>	Italian or English	
<b>Evaluation Criteria of qualifications</b> <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum vitae et studiorum	10
	Research project	10
	Scientific publications	2
	Thesis/Abstract	6
	Letters of reference	2
<b>Oral examination</b>	The oral examination is based on a discussion on the scientific titles submitted and includes an evaluation of English language knowledge.	
<b>Calendar of the oral examination</b>	<b>Date</b>	<b>15 September 2023</b>
	<b>Time</b>	<b>3:30 PM</b>
	<b>Place</b>	On line MS Teams
	Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid ID for admission to the oral examination	

**Research Topics Description**

**RESEARCH TOPICS**

<b>Title</b>	<b>Trajectory S4</b>	<b>FVG Regional impact</b>
1. Innovative technologies for monitoring coastal marine and transitional ecosystems	The research topic is part of area 3 of the S4 strategy "Maritime Technologies - Sustainable Waterborne Mobility and its land connections", in particular trajectory 3 SEA MADE IN FVG: technologies, systems and solutions for competitiveness and resilience of the territory. Modern remote sensing approaches, based on mobile systems equipped with sensors and cameras capable of performing repeatable and non-invasive analyses of the most diverse environments, constitute new opportunities for monitoring the territory and identifying possible critical situations	The research aims to contribute to the understanding of the distribution and ecological processes of some of the most productive habitats in the Upper Adriatic Sea, such as submerged seagrass beds and lagoon beds. The development of new remote technologies, which can also be applied to vessels, for monitoring these environments makes it possible to increase understanding of the most suitable locations for seagrasses, as well as increase knowledge of fragile coastal habitats and improve their management and resilience. In particular, populations of submerged seagrasses provide important eco-system services as



**TABLE 8 – PhD programme AGRICULTURAL SCIENCES AND BIOTECHNOLOGY**

	<p>that undermine its equilibrium. The use of small self-propelled catamarans capable of acquiring images of the seabed and environmental data relating to the characteristics of the sea enables a constant survey of the state of health of the seabed, an essential prerequisite for carrying out capillary control action along coastal areas.</p>	<p>they act as nurseries for various species of fish and bivalves and thus protect biodiversity, as well as representing sites where fish stock development is particularly favoured. The delicate balance and resilience of marine environments are exposed to the effects of environmental changes, such as rising sea temperatures, changes in the concentration of dissolved gases in the water, changes in seabed cover and in the interspecific relationships of submerged vegetation. The monitoring and protection of these marine ecosystems is therefore also relevant to fishing activities whose sustainability is ensured by the preservation of these environments. Moreover, the preservation of these habitats meets the growing demand for the protection of natural environments by the population, which prefers to spend leisure and rest periods in environments that are as unspoiled as possible and not altered by the strong impact of human activities. Careful monitoring of coastal ecosystems can certainly also increase the tourist attractiveness of these environments.</p>
<p>2.Studying the genetic mechanisms underlying grapevine Flavescence dorée resistance to increase sustainability of grape and wine production in North Italy</p>	<p>This PhD proposal is part of the specialisation area 'Health, quality of life, agri-food and bio-economy', in development trajectory no. 5: 'Development of an integrated bio-economic approach for the valorisation of territorial resources, fostering the security of production and the resilience of the value chains of the regional entrepreneurial system, through the integration of innovation interventions on sustainable and circular supply chains capable of bringing value to the consumer'. According to the S4 strategy, this goal can be achieved, inter alia, through 'innovative and sustainable agriculture and animal husbandry' (point a) and 'industrial innovation' (point b). In this research project, the ultimate goal is to obtain vines that are resistant to Flavescence dorée, a very serious quarantine disease of the grapevine, which is currently back in the epidemic phase in Europe and which has caused the greatest damage to the wine-growing sector in the last three years. Achieving this objective will enable an innovative, resilient and sustainable approach to the disease, which is now only combated through the use of insecticides and the timely removal of diseased vines. The pathway includes the application of advanced biomolecular techniques (as advocated in subpoint 6 of trajectory 5, point b), alongside traditional methods, and close collaboration with vine nurseries. In order to meet the local and traditional wine-growing and wine-making culture, and at the same time consumer demands, new resistant varieties will be developed, but above all TEA techniques (cisgenesis and genome editing) will be exploited to modify and make resistant to Flavescenza dorata the varieties already cultivated and registered in Italy, and in particular in Friuli Venezia Giulia. The final product will be innovative (resistant vines), consistent with the regional vision regarding sustainability and resilience, as well as with both national and EU Green Deal development guidelines. The PhD course will satisfy some of the strategic needs within the regional territory: to strengthen the propensity of SMEs to cooperate with universities/research centres; to consolidate</p>	<p>Fifteen per cent of the regional enterprises fall within the agriculture, fishing and forestry sector. Among these, the Friulian wine-growing nursery sector stands out for its excellence, which includes more than half of all Italian employees in the sector, and which produces a very important slice of vines at an international level. The analysis of the regional production system generally showed a low knowledge content on the part of companies. On the other hand, in Friuli Venezia Giulia the OECD study revealed an unsatisfied demand on the part of enterprises for support for innovation and a lack of technology transfer, despite the fact that there are qualified Research Institutes and Universities in the region that are above the Italian average. The SWOT analysis thus revealed that the propensity of SMEs to cooperate with universities/research centres, particularly for the development of international R&amp;D&amp;I projects, is still limited compared to the regional performance potential. In this project, on the contrary, the private nursery sector (wine grape vine nurseries) will play a leading role in the development of the PhD project and the final products (resistant vines), which will then be multiplied, cultivated and marketed by the nursery companies themselves. In detail, part of the vine materials necessary for the development of the doctoral project are already at the nurserymen's, who are cultivating them free of charge, hoping for support from the institutions, support that would give a very important acceleration to the research activities, which take years to complete. As pointed out in the analysis of regional strategies, the orientation of the innovation system is in the short term, and the regional system is lacking in long-term programming and planning. This doctoral project, on the other hand, has short-term but above all long-term objectives, both in terms of research and the end product and its exploitation by companies in the sector. In addition to the economic, productive and social effects on the Friuli Venezia Giulia nursery</p>



**TABLE 8 – PhD programme AGRICULTURAL SCIENCES AND BIOTECHNOLOGY**

	<p>models of collaboration between the scientific system and the production system, capable of generating open and continuous innovation processes. It will meet the change expected and identified in strategy S4: "A TRANSFORMED MANUFACTURING FABRIC: MORE INNOVATIVE, RESILIENT and SUSTAINABLE, both ENVIRONMENTALLY and SOCIALLY".. It will meet the change expected and identified in the S4 strategy: 'A TRANSFORMED PRODUCTIVE TEXTURE: MORE INNOVATIVE, RESILIENT and SUSTAINABLE, both ENVIRONMENTALLY and SOCIALLY'.</p>	<p>system, the development of vines resistant to flavescence dorée will have positive long-term effects on all wine-growing enterprises, which will reduce production and economic losses due to this disease, and which will also be able to reduce the number of insecticide treatments, thus also benefiting the environment and the health of operators, consumers and civil society.</p>
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**TABLE 9 – PhD Programme MATHEMATICAL AND PHYSICAL SCIENCES**

THE PhD PROGRAMME	
Administrative location	University of Udine - Department of Mathematics, Computer Science and Physics (DMIF) – via delle Scienze 206, 33100 Udine, Italy (+39 0432 558400).
Associated location	-
Location for training, teaching and research activity	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at the administrative programme location, other locations of the University of Udine or financial supporter's location (if the financial supporter is an external institution).
Coordinator	Prof.ssa Roberta Musina (roberta.musina@uniud.it)
Programme duration	3 years
Curriculum	-
Research topics	- MATHEMATICS: Algebra and Topology; Numerical analysis; Mathematical and functional analysis; Algebraic geometry; Mathematical logic; Dynamical systems; Statistics; Operation research; Mathematics for applied economics and finance. - PHYSICS: Astrophysics; Physics education; Particle physics; Advanced detection systems; Bio- and Nanosystems simulation.  More details at <a href="https://www.dmif.uniud.it/dottorato/smf/collegio-docenti/">https://www.dmif.uniud.it/dottorato/smf/collegio-docenti/</a>
Programme website	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/mathematical-and-physical-sciences/ph-d-programme/mathematical-and-physical-sciences?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-physical-science-and-engineering/mathematical-and-physical-sciences/ph-d-programme/mathematical-and-physical-sciences?set_language=en</a> <a href="https://www.dmif.uniud.it/dottorato/smf/">https://www.dmif.uniud.it/dottorato/smf/</a>

ADMISSION REQUIREMENTS	
Required degree	Italian Laurea (before DM 509/99) or Italian Laurea Specialistica/Magistrale (ex DM 509/1999 and Decree DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
Knowledge of the following foreign language	English

DOCUMENTS AND TITLES TO BE ATTACHED TO THE APPLICATION FOR ADMISSION	
<b>Compulsory documents</b> (Art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme (with candidate's grade and highest possible grade) and certified list of the exams (with candidate's grades, average grade, highest possible grade) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale programmes or during the Italian programmes ante D.M. 509/99 or during the foreign academic programmes;</li> <li>2. Curriculum vitae et studiorum, dated and signed;</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language).</li> </ol>
<b>Optional documents</b> (Art. 5 of the Call)	<ol style="list-style-type: none"> <li>1. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call must submit an extended abstract in place of the complete thesis, in Italian or English language, signed by the thesis Supervisor (between 15.000 and 25.000 characters, spaces included).</li> <li>2. Motivation letter from the applicant explaining the reasons for admission to the PhD programme, dated and signed (between 1.500 and 2.500 characters, spaces included);</li> <li>3. Publications (max 3);</li> <li>4. Letters of reference (max 2) written by university professors, scientific researchers or other experts in the field (art. 6 of the Call).</li> </ol>
<b>All documents must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

SELECTION COMMITTEE	
Appointed Members	Federico Fogolari – associate professor– University of Udine Paolo Giannozzi – associate professor– University of Udine



**TABLE 9 – PhD Programme MATHEMATICAL AND PHYSICAL SCIENCES**

	Miguel Soler – assistant professor (RTDA) – University of Udine
<b>Substitute Members</b>	Marina Cobal – Full professor– University of Udine Paolo Gidoni – assistant professor (RTDB) – University of Udine Simone Monzani – assistant professor (RTDB) – University of Udine

**ADMISSION**

**GENERAL COMPETITION (art. 9 of the Call for Applications)**

**Available positions: 1**

Detailed description	N.	Funding	Annual gross amount	Period abroad	Research topic
<b>Positions WITH SCHOLAR-SHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	Development of a computational pipeline and related methodologies for genetic mutation analysis/ drug development or repurposing/analysis of biological parameters.

**Competition procedure and test schedule**

<p>Evaluation of qualifications and oral examination. For the evaluation of applicants' attitude for scientific research and their basic skills before the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. The applicant is admitted to the oral examination if his/her titles receive at least 15 points. The oral examination is passed with at least 49 points. The applicant is eligible for the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles. <b>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 15, 2023.</b> <b>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.</b></p>		
<b>Foreign language that can be used for examination</b>	Italian or English	
<b>Evaluation Criteria of qualifications</b> <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum vitae et studiorum and Scientific publications	10
	Title and average grade of exams and Thesis/Abstract	10
	Research project and applicant's letters (Motivation letter + Letters of reference)	10
<b>Oral examination</b>	Interview about titles, previous career and research project also aimed at understanding the applicant's knowledge about fundamental topics in mathematics and/or physics, as well as his or her full eligibility to receive a scholarship funded by external institutions. Reading and understanding a short scientific text in English.	
<b>Calendar of the oral examination</b>	<b>Date</b>	<b>September 19, 2023</b>
	<b>Time</b>	<b>11:00 AM</b>
	<b>How to conduct the examination</b>	The oral examination will be held online.
	Based on the number of applicants, the oral examination may take more than one day. Applicants must exhibit a valid ID for admission to the oral examination.	

**RESEARCH TOPICS**

Title	Trajectory S4	FVG Regional impact
1. Development of a computational pipeline and related methodologies for genetic mutation analysis/ drug development or repurposing/analysis of	The research projects are part of the Specialization area "Health, Quality of Life, Agri-food and Bioeconomy", Trajectory 4: "Solutions and systems for innovative therapies: integrated development of drugs and biopharmaceuticals (biotech) for personalized and sustainable	The impact of the project on the social, economic and productive base of the region will be due to the development of methodologies for the analyses of genetic mutations. The latter analyses are becoming more and more pervasive in the personalized medicine and pharmaceutical areas, and of methods based on



**TABLE 9 – PhD Programme MATHEMATICAL AND PHYSICAL SCIENCES**

biological parameters.	medicine" Trajectory 2: "Solutions and biomedical innovative systems: integrated development of medical devices"	mutual information for the analysis and classification of biological parameters.
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**Table 10 - PhD in CLINICAL AND TRANSLATIONAL MEDICAL SCIENCES**

PHD COURSE	
<b>Administrative venue</b>	Università degli Studi di Udine (University of Udine), Dipartimento di Area Medica (Department of Medicine) (DAME) – via Colugna 50, 33100 Udine (tel. +39 0432 494301).
<b>Affiliated venues</b>	-
<b>Venue of the educational activity, teaching and research</b>	The training and teaching activities will take place mainly at the administrative site of the course or other sites of the University of Udine. The research program will be developed predominantly, with reference to the grant (see art. 11 of the announcement) and/or to the assigned supervisor, at one of the following locations: administrative, of the grant funder (if external entity).
<b>Coordinator</b>	Prof. Giuseppe Damante (giuseppe.damante@uniud.it)
<b>Course duration</b>	3 years
<b>Curriculum</b>	-
<b>Research programs</b>	<ul style="list-style-type: none"> <li>- Eating Disorders.</li> <li>- Equity, safety and quality of care and treatment in a global health perspective.</li> <li>- Study of minor cardiovascular risk factors and their impact on renal and cardiac function and residual risk of cardiovascular disease.</li> <li>- Biomarkers of acute lung and central nervous system damage (lipidomics and metabolomics).</li> <li>- Biomedical applications with stable isotopes and natural abundance of Carbon 13 and Deuterium (study of in vivo metabolism in humans and pharmacokinetic studies).</li> <li>- Molecular mechanisms underlying neurodegenerative diseases.</li> <li>- Genetic and epigenetic mechanisms of disease.</li> <li>- Oxidative energy metabolism following marked reduction in habitual physical activity levels in young and elderly subjects.</li> <li>- Microvascular and mitochondrial functions in humans following exposure to inactivity/microgravity ('bed rest').</li> <li>- Medication of retinal diseases.</li> <li>- Analysis of the neuromuscular and metabolic parameters of the lower limbs associated with motor function in the elderly population and study of the effects of exercise, with and without neuromodulation, in improving motor function.</li> <li>- Causal factors, mechanisms and effects of Unfinished Nursing Care</li> <li>- Effectiveness of continuing education strategies in health professionals</li> <li>- Tools and methods for nutritional epidemiology from a translational perspective to assess the impact of nutritional patterns on human health</li> <li>- Impact of nutrition on the outcome of neuroinflammatory and neurodegenerative diseases Evaluation through clinical-instrumental methods of functional performance (motor, cognitive and quality of life), biological markers of inflammation and changes in gut microbiota</li> <li>- Update of the Food Composition Database for epidemiological studies in Italy.</li> <li>- Mechanisms of pressure regulation and organ damage production in the action of adrenal hormones and the renin-angiotensin system.</li> <li>- Betelactam doublet in the therapy of infections: concept of PBP (penicillin binding protein) saturation.</li> <li>- CSF biomarkers in the prognosis of central nervous system infections.</li> <li>- Clinical integration in oncology of imaging-derived biomarkers, including artificial intelligence.</li> <li>- Clinical integration in pulmonary pathology of imaging-derived biomarkers, including artificial intelligence.</li> <li>- Clinical integration in rheumatology of imaging-derived biomarkers, including artificial intelligence.</li> <li>- ICU acquired weakness strategies for diagnosis and therapy (nutrition hormones, microbiome).</li> <li>- Sepsis, diagnosis, markers and prognosis.</li> <li>- Solid organ transplants (liver and/or kidney) and acute renal failure, diagnosis, prevention, management.</li> <li>- Haemodynamic monitoring, new systems, risk-benefit, outcome, utilisation.</li> <li>- Interconnection between research, teaching and environments for the design, development, delivery and evaluation of training events developed for professionals in the health area (with particular attention to the professionalism of general, clinical and paediatric nursing sciences), from an intersectoral and multidisciplinary perspective.</li> </ul>



**Table 10 - PhD in CLINICAL AND TRANSLATIONAL MEDICAL SCIENCES**

Course site	<a href="https://www.uniud.it/it/ricerca/lavorare-nella-ricerca/dottorato-ricerca/inostricorsi/area-life-science/sc_med_clitr/il-dottorato">https://www.uniud.it/it/ricerca/lavorare-nella-ricerca/dottorato-ricerca/inostricorsi/area-life-science/sc_med_clitr/il-dottorato</a>
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**PARTICIPATION REQUIREMENTS**

Educational qualification	Degree (ante D.M. 509/99) or Master's Degree (former M.D. 509/99 and M.D. 270/04). For degrees earned abroad see art. 3 and 4 of the announcement.
Knowledge of the following foreign language	English

**DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION TO THE PUBLIC EXAM**

Required documents and qualifications (art. 5 announcement)	<ol style="list-style-type: none"> <li>1. Certification from the foreign university (for non-EU applicants) or self-certification (for EU applicants) (see art. 5 c. 5 of the announcement) of the academic qualification for admission to the doctoral program with examinations taken and final grade (for academic qualifications obtained abroad see art. 3 and 4 of the announcement);</li> <li>2. Curriculum vitae et studiorum, dated and signed;</li> <li>3. Copy of a valid personal identity document (for citizens of non-EU countries copy of passport, especially pages with document number, photograph, personal data, place and date of issue, expiration date);</li> <li>4. A research project, dated and signed, prepared in coherence with one of the research themes of the course and the S4 areas and trajectories (indicative limit 10,000 characters, including spaces, in English).</li> </ol>
Optional documents and qualifications (art. 5 announcement)	<ol style="list-style-type: none"> <li>1. Publications in journals with impact factor (max 2);</li> <li>2. Letters of reference (max 2), from university professors, scientific researchers or other experts in the field (see art. 6 of the announcement).</li> </ol>
<b>All titles must be submitted in PDF format only, dated and signed by the candidate.</b>	

**SELECTION COMMITTEE**

Full members	Giuseppe Damante – full professor – University of Udine Bruno Grassi – full professor – University of Udine Alvisa Palese – full professor – University of Udine
Alternate members	Stefano Lazzer – associate professor – University of Udine Piercamillo Parodi – full professor – University of Udine Maria Parpinel – associate professor – University of Udine

**ADMISSION METHOD**

**GENERAL PUBLIC EXAM (art. 8 of the announcement)**

Available positions: 1

Description of positions	N.	Lender	Gross annual amount	Period abroad	Research program
Positions WITH SCHOLARSHIP: 1	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16.243,00	max. 6 months optional	Consistent with at least one of the research themes

**Method of conducting the public exam and testing schedule**

Evaluation of qualifications and oral test.

For the evaluation, aimed at ascertaining the candidate's aptitude for scientific research and his or her basic preparation for the purpose of carrying out the course program, the Commission has 100 points, including 30 points for the evaluation of titles and 70 points for the oral test. Candidates who score at least 15 points in the evaluation of qualifications are admitted to the oral test. Passing the oral test requires the achievement of at least 49 points. Eligibility for the doctoral course is achieved by passing the oral test. For eligible candidates only, the score from the evaluation of qualifications will be added to the score obtained in the oral test.

**PUBLICATION DATE OF LIST OF CANDIDATES ADMITTED TO THE ORAL TEST: by September 8, 2023.**

**PUBLICATION DATE OF GENERAL GRADUATORY LIST OF CANDIDATES ADMITTED TO THE COURSE: by 29 September 2023.**



**Table 10 - PhD in CLINICAL AND TRANSLATIONAL MEDICAL SCIENCES**

Method of conducting the public exam and testing schedule		
Languages in which tests can be taken	Italian or English	
Criteria for the evaluation of securities <i>The Commission at the preliminary meeting may establish subcriteria for evaluation</i>	Curriculum vitae e studiorum	10
	Scientific Publications	4
	Letters of reference	2
	Research project	14
Oral test	The interview will be conducted partly in English.	
Oral test schedule	Date	September 18, 2023
	Time	11:00 AM
	Location	Dipartimento di Area Medica (department of Medicine) (DAME), Classroom B - square Kolbe 4, 33100 Udine
	If the number of candidates requires it, the oral test may be held on more than one day. Candidates must show identification to take the tests.	

RESEARCH TOPIC		
Title	Trajectory S4	FVG Regional impact
1. Determinants of outcome and response to treatment in eating disorders	Theme consistent with Trajectory 1 of Strategy S4 FVG - Systems and solutions for health maintenance and care support: nutraceuticals, food supplements, functional foods, medical nutrition and functional cosmetics.	The project aims to promote the central role of research in the Regional Health Service (RHS), with the goal of producing results that can be directly used to improve the health services provided. In fact, research activity and the resulting innovation represent a central element for the development and continuous improvement of the quality of health services, allowing innovations to be transferred in a timely, effective and appropriate manner, directing their application to the care needs of their context. Specifically, the project aims to equip itself with a common platform in mental health that would allow both earlier and more accurate diagnoses and the promotion of more appropriate drug treatment and care protocols. Such elements would, in fact, enable the anticipation of treatment with benefits on patients' health conditions, and lead to reducing the social impact of neuropsychiatric disorders and containing healthcare costs.
2. Ketogenic nutritional intervention in subjects with neuroinflammatory and neurodegenerative diseases. Evaluation of functional outcomes and changes in the gut microbiota.	Theme consistent with Trajectory 1 of Strategy S4 FVG - Systems and solutions for health maintenance and care support: nutraceuticals, food supplements, functional foods, medical nutrition and functional cosmetics. Trajectory 1 includes, inter alia, research, development, validation and production of customised foods and foods for special medical purposes, also based on individual genetic profiles.	Trajectory 1 includes, among other things, research, development, validation, and production of personalized foods and foods for use for special medical purposes, also based on the individual genetic profile. In fact, the project involves the development of personalized ketogenic diet protocols and evaluating their clinical effects on individuals with neuroinflammatory and neurodegenerative diseases. It is expected that the project will eventually result in the development of a dietary intervention protocol that can be easily exported to other care facilities, both public and private (e.g., residential facilities housing people with neurodegenerative disease problems) The project has an important societal impact in that the diet will be able to improve the quality of life of people with neuroinflammatory and neurodegenerative diseases (e.g., Parkinson's and Alzheimer's) and reduce their hospitalization or admission to specialized facilities.



**TABLE 11 – PhD Programme in ART HISTORY, FILM STUDIES, MEDIA STUDIES AND MUSIC**

<b>THE PhD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine, Department of Humanities and Cultural Heritage (DIUM) - vicolo Florio 2, 33100 Udine (+39 0432 556100)
<b>Associated location</b>	-
<b>Location for training, teaching and research activity</b>	Teaching and other training activities will take place primarily at the administrative programme location or in other locations of the University of Udine. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at the administrative programme location, other locations of the University of Udine or financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Alessandro Del Puppo (alessandro.delpuppo@uniud.it)
<b>Programme duration</b>	3 years
<b>Curricula</b>	- Art History - Film Studies, Media Studies, Music
<b>Research topics</b>	<i>Art History</i> - Medieval Art History; - Modern Art History; - 19 <sup>th</sup> and 20 <sup>th</sup> Century Art History (Painting and Sculpture); - Museum Studies, Art Restoration History, Art Criticism; - Architecture History.  <i>Film Studies, Media Studies, Music</i> - Film, Photography and TV Studies; - Media Studies (game studies, media studies, screen studies); - Musicology.
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/art-history-film-studies-media-studies-and-music/ph-d-programme/art-history-film-studies-media-studies-and-music?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/art-history-film-studies-media-studies-and-music/ph-d-programme/art-history-film-studies-media-studies-and-music?set_language=en</a> <a href="https://diium.uniud.it/en/didattica/corsi-di-studio/dottorati-di-ricerca/storia-dellarte-cinema-media-audiovisivi-e-musica/">https://diium.uniud.it/en/didattica/corsi-di-studio/dottorati-di-ricerca/storia-dellarte-cinema-media-audiovisivi-e-musica/</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Required degree</b>	Italian Laurea (before DM 509/99) or Italian Laurea Specialistica/Magistrale (ex DM 509/1999 and DM 270/04). Foreign degrees and titles: refer to art. 3 and 4 of the Call.
<b>Knowledge of the following foreign language</b>	One of the following: English, French, German, Spanish

<b>DOCUMENTS AND QUALIFICATIONS TO BE ATTACHED TO THE APPLICATION FOR ADMISSION</b>	
<b>Compulsory documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Certification or self-certification (refer to art. 5 paragraph 5 of the Call) of the academic title needed for admission to the PhD programme and list of the exams (with grades) passed during the Italian first level (bachelor) and the Laurea Specialistica/Magistrale programmes, or during the Italian programmes before D.M. 509/99, or during the foreign academic programmes;</li> <li>2. Master thesis ("Tesi di Laurea") associated to the degree/title providing access to the PhD programme. Applicants who are not graduated on the expiration date of this Call must submit an extended abstract in place of the complete thesis, in Italian or English language, signed by themselves and by their thesis Supervisor (approximate limit 25.000 characters, spaces included);</li> <li>3. Curriculum vitae et studiorum, dated and signed;</li> <li>4. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> <li>5. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in English language). The project's structure should touch upon the following questions: <ul style="list-style-type: none"> <li>- Objectives;</li> <li>- State of the art;</li> <li>- Methodology;</li> <li>- Achievable results;</li> <li>- Timeline;</li> </ul> </li> </ol>



**TABLE 11 – PhD Programme in ART HISTORY, FILM STUDIES, MEDIA STUDIES AND MUSIC**

	- Bibliography.
<b>Optional documents (art. 5 of the Call)</b>	1. Motivation letter by which the applicant explains the reasons for admission to the PhD programme, dated and signed (approximate limit 2.500 characters, spaces included); 2. Publications (max 5).
<b>All qualifications must be presented exclusively in PDF format, dated and signed by the candidate.</b>	

**SELECTION COMMITTEE**

<b>Appointed members</b>	Alessandro Del Puppo – full professor – University of Udine Luca Pietro Nicoletti – associate professor – University of Udine Martina Visentin – researcher – University of Udine
<b>Substitute members</b>	Orietta Lanzarini – associate professor – University of Udine

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

**Available positions: 1**

<i>Detailed description</i>	<i>N.</i>	<i>Funding</i>	<i>Annual gross amount</i>	<i>Period abroad</i>	<i>Research topic</i>
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	Case studies, ateliers, non-museum collections. Network model for sustainable cultural tourism in FVG

**Competition procedure and test schedule**

Evaluation of qualifications and oral examination. For the evaluation of applicants' attitude for scientific research and their basic skills before the course program, the Selection Committee can attribute up to 100 points to each applicant: max 30 points to the titles and max 70 points to the oral examination. The applicant is admitted to the oral examination if his/her titles receive at least 21 points. The oral examination is passed with at least 49 points. The applicant is eligible to the PhD programme if he/she passes the oral examination. Only for eligible applicants, the points attained in the oral examination will be added to the points of the titles. <b>DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 7, 2023.</b> <b>DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.</b>		
<b>Foreign language that can be used for examination</b>	Italian, English and/or French	
<b>Evaluation Criteria of qualifications</b> <i>During the preliminary meeting the Selection Committee may establish sub-criteria for the evaluation</i>	Curriculum vitae et studiorum	3
	Research project	16
	Scientific publications	3
	Thesis/Abstract	7
	Motivational letter for admission to the PhD programme	1
<b>Oral examination</b>	The oral examination aims at verifying the research skills of the applicants, with particular reference to the research project.	
<b>Calendar of the oral examination</b>	<b>Date</b>	<b>September 14, 2023</b>
	<b>Time</b>	<b>03:00 PM</b>
	<b>Location</b>	Department of Humanities and Cultural Heritage (DIUM) - Sala Tiepolo, Palazzo Caiselli, vicolo Florio 2, 33100 Udine.
	Based on the number of applicants, the oral examination may take place in more than one day. Applicants must exhibit a valid ID for admission to the oral examination.	





**TABLE 11 – PhD Programme in ART HISTORY, FILM STUDIES, MEDIA STUDIES AND MUSIC**

RESEARCH TOPICS		
Title	Trajectory S4	FVG Regional impact
1. Case studies, ateliers, non-museum collections. Network model for sustainable cultural tourism in FVG.	Trajectory 5. System development for competitiveness through national and international levers and frameworks for Cultural and Creative Enterprises (CCI) and Tourism. The project is consistent with the objectives of the Sustainable Smart Specialisation Strategy (S4), Area Cultural heritage, design, creative industries, tourism, Trajectory 5. System development for competitiveness through national and international levers and frameworks for Cultural and Creative Industries (CCIs) and Tourism An atlas of these cultural realities makes it possible to develop and strengthen integration with the regional tourism-productive system and with research organisations (universities, museums, banking foundations, cultural associations) in the region.	There exists in the Region a rich though little-known artistic and cultural reality linked to the presence of case-studios, artist ateliers and non-museum collections (such as those belonging to local authorities, foundations and universities). The project aims to build a regional network of these realities with a view to their valorisation, synergies with already existing realities, and their effective inclusion in the region's cultural tourism offer. The work envisages reconnaissance, census, filing, photographic surveys, and the setting up of an information portal with georeferencing and an interactive map.



**TABLE 12 – PhD Programme in LINGUISTICS AND LITERATURE**

<b>THE PHD PROGRAMME</b>	
<b>Administrative location</b>	University of Udine, Department of Languages and Literatures, Communication, Education and Society (DILL) - Palazzo Antonini - Via Petracco, 8 – Udine 33100 (ph. +39 0432 556750).
<b>Associated location</b>	University of Trieste (Department of Law, Language, Interpreting and Translation Studies; Department of Humanities) - Piazzale Europa 1, 34127 Trieste.
<b>Locations of lectures, seminars, and research activities</b>	Lectures, seminars and research activities will be held at the Universities of Udine and Trieste. The research program will be mainly developed, with reference to the scholarship (see art. 11 of the Call) and/or to the supervisor assigned, at one of these locations: administrative location, associated location, financial supporter's location (if the financial supporter is an external institution).
<b>Coordinator</b>	Prof. Elena Polledri (elena.polledri@uniud.it)
<b>Programme duration</b>	3 years
<b>Curricula</b>	<ul style="list-style-type: none"> <li>- Foreign Literatures;</li> <li>- Linguistics, Translation, Interpretation;</li> <li>- Italian Studies.</li> </ul>
<b>Research topics</b>	<ul style="list-style-type: none"> <li>- <i>Foreign Literatures.</i> This curriculum focuses on the interpretation and analysis of texts pertaining to modern European and Extraeuropean literatures and cultures of the following areas: Anglophone and Anglo-American Studies, French and Francophone Studies, Spanish and Hispanophone Latin American Studies, German Studies, Russian Studies, Serbian and Croatian Studies;</li> <li>- <i>Linguistics, Translation and Interpretation.</i> This curriculum offers an interdisciplinary approach to the study of foreign languages and linguistics (including applied linguistics), general linguistics, historical linguistics, Germanic and Slavic philology, the theory and practice of translation and interpreting, in relation to their respective languages (French, English, Russian, Serbian and Croatian, Spanish, German);</li> <li>- <i>Italian Studies.</i> This curriculum intends to provide and refine skills and competence in the fields of Italian literary history, literary theory, history of the Italian language, Italian and Romance philology, History of the theatre and comparative literature.</li> </ul>
<b>Research lines</b>	The PhD programme board establishes the lines of research according to the specificities of the three PhD programme curricula.
<b>Programme website</b>	<a href="https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/language-and-literature/ph-d-programme/language-and-literature?set_language=en">https://www.uniud.it/en/research/do-research/doctorate-res/our-ph-d-programmes/area-social-science-and-humanities/language-and-literature/ph-d-programme/language-and-literature?set_language=en</a>

<b>ADMISSION REQUIREMENTS</b>	
<b>Degree required</b>	Italian "Laurea Magistrale/MA degree" (ex DM 270/04): LM-5 in Archival and Library Studies; LM-14 in Modern Philology; LM-15 in Classical Philology, Literature and History; LM-37 in Modern European and American Languages and Literatures; LM-38 in Modern Languages for International Communication and Cooperation; LM-39 in Linguistics; LM-94 in Specialized Translation and Interpreting; LM-85bis five-year degree in Primary Education. Italian "Laurea" (prior to DM 509/99) or Italian Laurea specialistica (ex DM 509/1999) equivalent to the MA degrees mentioned above (in accordance to DI 9/07/2009). For foreign degrees and titles: see articles 3 and 4 of the Call for applications.
<b>Knowledge of the following foreign languages</b>	French (compulsory) + one of the following: English, Russian, Serbian and Croatian, Spanish, German.

<b>APPLICATION REQUIREMENTS</b>	
<b>Mandatory Documents (art. 5 of the Call)</b>	<ol style="list-style-type: none"> <li>1. Proof of BA and MA degree (refer to art. 5 paragraph 5 of the Call) and transcripts of records from all universities attended prior to the application, including degrees conferred prior to the implementation of the Bologna process (i.e. prior to D.M. 509/99) and degrees obtained abroad;</li> <li>2. Curriculum Vitae, dated and signed;</li> <li>3. Copy of a valid identity document (citizens of countries not belonging to the European Union a copy of a valid passport, comprehensive of the pages containing the holder's photo, personal details, passport number, date and place of issue, date of expiry);</li> </ol>



**TABLE 12 – PhD Programme in LINGUISTICS AND LITERATURE**

	<p>4. A research project, dated and signed, developed in accordance with one of the research topics of the PhD course and with the Areas and S4 trajectories (approximate limit 10.000 characters, spaces included, in Italian or French language);</p> <p>5. A copy of the candidate's thesis submitted in fulfilment of the master's degree. Applicants who have not graduated before the application deadline must submit an extended abstract in place of the complete thesis, in Italian or English Language, signed by themselves and by their thesis supervisor (min 15,000 - max 25,000 characters, spaces included).</p>
<b>Optional documents</b> (art. 5 of the Call)	1 Publications (max 2);

**SELECTION COMMITTEE**

<b>Appointed members</b>	Alessandra Ferraro – full professor – University of Udine Sonia Gerolimich – researcher – University of Udine Fabio Regattin – associate professor – University of Udine
<b>Substitute members</b>	Sergio Cappello – full professor – University of Udine Sara Vecchiato – associate professor – University of Udine

**ADMISSION**

**GENERAL COMPETITION (art. 8 of the Call for Applications)**

**Available positions: 1**

<i>Detailed description</i>	<i>N.</i>	<i>Funding</i>	<i>Annual gross amount</i>	<i>Period abroad</i>	<i>Research topic</i>
<b>Positions WITH SCHOLARSHIP: 1</b>	1	Regional Programme (PR) ESF+ 2021/2027 of the Autonomous Region Friuli Venezia Giulia. Periodic planning of operations - PPO Annual 2023. Specific Programme 22/23 - Support for higher education in the regional university system. LINE A - Research Doctorates.	€ 16,243.00	max 6 months optional	"Dedica" and translation: textual and paratextual survey of the French and Francophone sphere, creation of an open database

**Competition procedure and test schedule**

Evaluation of application materials, written and oral examination.

For the evaluation of the applicants' aptitude for research and study, the Selection Committee can assign up to 100 points to each candidate:

- max 30 points for the evaluation of the candidates' application materials: CV, research project, publications and MA thesis (or thesis abstract);
- max 70 points for the oral examination.

The applicant is admitted to the oral examination if his/her application materials receive at least 21 points. Applicants are considered eligible for the PhD programme if they receive at least 49 points in the written and oral examination combined. Only for eligible applicants, the points assigned to the application materials will be added to the points obtained in the oral examination.

**DATE FOR THE PUBLICATION OF ADMITTED APPLICANTS TO THE ORAL EXAMINATION: within September 7, 2023.**

**DATE FOR THE PUBLICATION OF THE FINAL RANKING LIST: within September 29, 2023.**

<b>Language in which the exam can be taken</b>	Italian	
<b>Criteria for the evaluation of CVs, research projects, publications, and thesis</b>	Curriculum vitae	6
	Research project	14
	Publications	3
	Thesis/Abstract	7
<i>The Selection Committee may establish sub-criteria for the evaluation</i>		
<b>Oral examination</b>	The oral examination will consist of a discussion of the candidate's research project. The oral examination will also include a conversation in French.	
<b>Oral examination schedule</b>	<b>Date</b>	<b>September 14, 2023</b>
	<b>Time</b>	<b>2:00 PM</b>
	<b>Location</b>	The oral examination will be held in person. Università degli Studi di Udine, Centro di Cultura Canadese, Via Petracco 8, Udine.
	Depending on the number of applicants, the oral examination may take more than one day. Applicants must produce a valid ID for admission to the oral examination.	



**TABLE 12 – PhD Programme in LINGUISTICS AND LITERATURE**

RESEARCH TOPICS		
Title	Trajectory S4	FVG Regional impact
1. "Dedica" and translation: textual and paratextual investigation of the French and francophone context, creation of an open database	<p>Active since 1995, in its twenty-ninth edition in 2023, "Dedica" festival (<a href="https://dedicafestival.it/">https://dedicafestival.it/</a>), promoted by the Pordenone-based Associazione Thesis, disseminates to a wide audience the works of important Italian and foreign authors. It is one of the most relevant and original literary and cultural events in our region, as well as in the national sphere: the Festival, built around a single personality of international culture, offers the public the opportunity to meet a great author and delve into his intellectual undertakings, creative paths, and biography. Over time, many writers from the French and Francophone spheres have been the focus of the event: in the last few years alone, from 2016 onward, one can mention such prominent authors as Maylis de Kerangal, Mathias Énard, Atiq Rahimi or Yasmina Khadra.</p> <p>The proposed doctoral project pursues two distinct objectives, one which is more tightly cast in the reality of the Festival and one that aims to open it to innovative suggestions and paths of analysis.</p> <p>Objective 1: Digitization, study of the presence of translation. The first objective involves a work inspired by Genettian studies on the paratext and its applications in the field of translation, as well as studies related to translation imaginaries (Bezari et al. 2018; Elefante 2012; Yuste Frías 2010, 2015). The work will take place in two phases: 1- Collection, digitization and diffusion to the public, on the e-Dvara platform of the University of Udine (<a href="https://edvara.infofactory.it/">https://edvara.infofactory.it/</a>), of the press reviews relating to the Festival for the years in which "Dedica" was dedicated to a French-speaking author; 2- Analysis of the presence of the translation within this corpus. This phase will allow to understand how and to what extent the practice of translation – which is crucial for the passage of literary works into different cultural contexts – is conceptualized in the journalistic discourse on the Festival (bearing in mind that "Dedica" systematically devotes a great space to translators).</p> <p>Objective 2: Translation criticism. The second objective involves carrying out a quantitative (inspired by Moretti's "distant reading") and qualitative analysis (based on the critical approaches to translation of Berman 1995, Hewson 2011, Nord 2005, Reiss 2000) of the Italian translations of a selection – to be carried out during the project – of the works of French-speaking authors invited by "Dedica" throughout its history. This translation criticism will allow, starting from a case study of manageable dimensions, to better understand the paths and movements of literature in French in our country (and, by the same token, the choices made by the Festival itself) and will have as a consequence the greater notoriety of the event in university. Active since 1995, in its twenty-ninth edition in 2023, "Dedica" festival (<a href="https://dedicafestival.it/">https://dedicafestival.it/</a>), promoted by the Pordenone-based Associazione Thesis, disseminates to a wide audience the works of important Italian and foreign authors. It is one of the most relevant and original literary and cultural events in our region, as well as in the national sphere: the Festival, built around a single personality of</p>	<p>This doctoral project will make it possible to create and strengthen the ties between the University of Udine and the Festival, and through the digitisation and dematerialisation of the event's archives will make contents that now require interested parties to go to the Pordenone office of the Thesis Association immediately accessible and navigable.</p> <p>In addition to the obvious spin-offs in terms of accessibility and usability of materials related to the Festival, this doctoral project will strengthen the ties between "Dedica" and the University of Udine, with important spin-offs also in terms of teaching and the mutual prestige of the institutions involved. At the same time, it will open the University to the presence of great personalities from the world of culture (as already happened in the 2022-2023 academic year with the writer Maylis de Kerangal) and will give greater visibility to the Festival, to its work in the area and to its effects also in terms of employment.</p>



**TABLE 12 – PhD Programme in LINGUISTICS AND LITERATURE**

	<p>international culture, offers the public the opportunity to meet a great author and delve into his intellectual undertakings, creative paths, and biography. Over time, many writers from the French and Francophone spheres have been the focus of the event: in the last few years alone, from 2016 onward, one can mention such prominent authors as Maylis de Kerangal, Mathias Énard, Atiq Rahimi or Yasmina Khadra.</p>	
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