CALL FOR APPLICATIONS FOR ADMISSION TO THE SINGLE CYCLE DEGREE PROGRAMME IN VETERINARY MEDICINE (CLASS LM-42) ACADEMIC YEAR 2017/2018

THE RECTOR

HAVING REGARD TO
Law no. 264 of 02 August 1999 regulating access to university programmes;

HAVING REGARD TO
Ministerial Decree no. 270 of 22 October 2004, “Amendments to the regulations on the educational autonomy of universities” (Modifiche al regolamento recante norme concernenti l’autonomia didattica degli atenei) approved with Decree of the Minister for Universities and Scientific and Technological Research no. 509 of 3 November 1999;

HAVING REGARD TO
Ministerial Decree no. 447 of 28 June 2017 that defines the admission exam procedure for long single cycle degree programmes with admission quota for the academic year 2017/2018;

AND CONSIDERING
That the above decree assigned a provisional number of places to the universities until the expected admissions programming decree establishes the final number;

DECREES
A competition for admission to the long single cycle degree programme in Veterinary Medicine (class LM-42) for academic year 2017/2018.

Art. 1 - Admission requirements
Applicants with an upper secondary school diploma or equivalent qualification obtained abroad can take the admission exam.

Foreign qualifications are valid if obtained after at least 12 years of schooling. If the local education system provides 11 or 10 years of schooling, the qualification is valid if supplemented by one or two years of university study, respectively, and if all exams scheduled for the years attended have been passed. The years of university study can be
substituted by a post-secondary qualification awarded by a non-university higher education institute. Further information about the foreign qualifications valid for access to University is contained in the relevant annual Ministerial provisions, in particular in the attachments 1 and 2, published on the Ministry website: [http://www.studiare-in-italia.it/studentistranieri/](http://www.studiare-in-italia.it/studentistranieri/).

The eligibility of the foreign qualification in any case is assessed by the University having regard to the ministerial instructions on the subject and in implementation of bilateral applicable agreements.

EU and non-EU citizens who hold a Residence Permit issued in accordance with art. 26 of law no. 189 of 30 July 2002 have access to university education under the same conditions as Italian students.

Citizens of Norway, Iceland, Liechtenstein, Switzerland, the Republic of San Marino, refugees and beneficiaries of subsidiary protection, personnel serving in foreign diplomatic missions and in international bodies with headquarters in Italy - accredited by the Italian State or the Holy See - as well as their dependent family members (spouses and children only) are considered equivalent to EU citizens.

Non-EU applicants resident abroad access with the procedures and the limitations provided by the mentioned ministerial instructions.

**Art. 2 - Number of places available (provisional)**

The number of places available for enrolment in the first year is 73, until the expected admissions programming decree establishes the final number.

The number of places reserved for non-EU citizens resident abroad is determined in 5.

**Art. 3 - Registering for the admission exam and deadlines**

To sit for the admission exam, candidates must register on the UNIVERSITALY website ([www.universitaly.it](http://www.universitaly.it)) and at online services of the University of Milan in order to pay the registration fee of €50.

To register, applicants must follow the procedure below:

**3.1 - Registration on the UNIVERSITALY website**

Registration is exclusively online at [www.universitaly.it](http://www.universitaly.it) between 3 July 2017 and 3pm (GMT+1) 25 July 2017. No extension of time is allowed.

During registration the candidate must indicate:

a) in order of preference, the universities for which he/she wishes to compete, considering point b). The preferences expressed cannot be changed or added after 3pm (GMT+1) 25 July 2017. The last “confirmation” expressed by the candidate before that deadline will be considered valid.
First valid preference is, in the order of the preferences indicated, the best option in relation to campus and programme, in which the candidate can enrol on the basis of the score obtained in the exam and the number of available places.

b) The candidate must in any case sit for the exam at the university campus indicated as first choice.

3.2 - Registration on Servizi online Sifa at University of Milan

After registering on UNIVERSITALY, the candidate must apply on the University website as indicated below between 5 July 2017 and 3pm, 25 July 2017:

1. Register on the University portal through the page https://www.unimi.it/registrazione/ENG/registra.keb (not required of those already registered on the portal or in possession of University login credentials)

2. Access the online services SIFA using their login credentials: http://www.unimi.it/hpsifa/ENG/nonProfiledPage_100.html

3. Pay the € 50.00 fee in one of the following ways:
   - using the “MAV” (notice of payment) form generated at the end of the online registration procedure;
   - by credit card (the only accepted payment method for resident abroad applicants).

The fee must be paid by 25 July 2017, on pain of exclusion. No extension of time is allowed. Only candidates who regularly registered on www.universitaly.it and paid the €50 fee can sit for the exam.

Applicants who provide false details will be excluded from the final ranking list.

Besides online university enrolment, non-EU applicants resident abroad, must also present an application for pre-enrolment to the Italian diplomatic office in their country of origin, in accordance with the methods and deadlines set out in current provisions regarding the enrolment of foreign students in university programmes published on the Ministry of Education, Universities and Research webpage: http://www.studiare-in-italia.it/studentistranieri/.

Art. 4 - Disabled applicants

In order to ensure equal opportunities during the exam, applicants with disabilities who require extra time and/or specific aids - if in possession of a certificate of legal disability and/or acknowledgement of status of handicap under law 104/92 - must provide specific application (available at the following link: http://www.unimi.it/cataloghi/segreterie/Application_disabled.pdf) together with the above-mentioned certificate issued by the National Health Service or accredited specialists or facilities.
The scanned documents must be sent using the Infostudenti service (www.unimi.infostudente.it) by selecting the category Test, bandi e graduatorie within the 25 July 2017.

Art. 5 - Applicants with SLD

To the applicants with a diagnosis of specific learning disabilities (SLD) under law no. 170/2010 is granted an extra time until the 30% more time than that set for the other applicants. The committee will evaluate the received applications and, in order to ensure equal opportunities during the exam, will be able to consent the use of other compensatory tools taking into consideration the type of test to be taken and the type/degree of the candidate’s disability.

To be accorded the abovementioned measures, applicants with SLD must provide specific application (available at the following link: http://www.unimi.it/cataloghi/segreterie/Application_sld.pdf) together with appropriate certification issued by the National Health Service or accredited specialists or facilities (issued no more than three years earlier if the applicant was underage at the time of the issuance of the certification).

The scanned documents must be sent using the Infostudenti service (www.unimi.infostudente.it) by selecting the category Test, bandi e graduatorie within the 25 July 2017.

Art. 6 - Admission exam schedule and procedure

The admission exam will take place on 6 September 2017 at the teaching sector of Via Celoria 20, Milan (access from Via Celoria 26 and Via Golgi 19).

The examination areas will be indicated at the page http://www.unimi.it/ENG/admission/89365.htm, as from 1 September 2017.

Candidates will be distributed in the examination areas according to age, except in the case of twins.

Candidates must arrive at the examination room at 9am bearing the valid identity document indicated during registration for the admission exam. Candidates presenting without valid documents will not be admitted to the exam.

If requested by the Examining committee, candidates must show the online registration receipt issued by UNIVERSITALY and the receipt for payment of the €50 fee (if paid by MAV).

Non-EU candidates must also show a photocopy of their residence permit or entry visa for Italy.

Candidates presenting without documents or with invalid documents, and those arriving late, will not be admitted to the exam.

The exam begins at 11am and it lasts for 100 minutes.

In the examination room, each candidate will receive a folder containing:
a) a personal data form without any identification code;

b) the examination questions bearing the identification code of the folder;

c) an answer form bearing the identification code of the folder;

d) a sheet printed with the identification code of the folder and the indication of university and degree programme of the admission exam.

The following rules must be observed during the exam:

a) a black pen must be used to mark the answer form;

b) candidates who interact or bring cell phones, tablets, smartphones, smartwatches and the like, or manuals, schoolbooks, handwritten notes or other material to consult into the examination room will be disqualified;

c) candidates must fill in the personal data form and sign the declaration that the codes mentioned in f) are identical, when submitting the answer form;

d) candidates can correct one (and only one) answer to a question by completely blacking out the previously chosen box and choosing another: only one of the five boxes must be crossed in order to score a point;

e) next to the sequential numbers of the questions, the answer form bears a small circular figure to mark in the case of “no answer”; once marked, the choice cannot be modified; if no mark is placed in the circle or in any box, “no answer” is in any case scored;

f) at the end of the exam, the candidate goes to the dedicated desk, chooses a pair of identical adhesive labels, and applies them to the answer form and the personal data form. The candidate then signs the declaration at the bottom of the personal data form that the personal data is true and that the codes applied to the two forms are identical. The candidate then posts the personal data form in the box at the appropriate desk and the answer form in the box on the committee’s desk.

g) it is allowed to leave the examination room only 30 minutes before the conclusion of the exam.

The candidate’s exam is invalidated in the following cases:

1. If the candidate sits for the exam in a room different from the one to which he/she is assigned, unless the change is authorised by the Examining committee and mentioned in the committee report;

2. If the candidate brings a cell phone, tablet, smartphone and the like, or manual, schoolbook, handwritten notes or other material to consult into the examination room;

3. If the answer form is signed or marked by the candidate or by a member of the Committee;

The invalidation of the exam is decided by the Examining Committee. In case of invalidation no score is attributed to the exam.
The Committee and the assisting personnel supervise observation of the rules and can take measures in the case of non-observation. For aspects not specified in the present announcement, the rules for public competition are applied.

**Art. 7 - Examining committee**

The examining committee is appointed by rectoral decree.

During the exam the committee is assisted by teaching and administrative staff, who are responsible for supervising and identifying candidates.

**Art. 8 - Examination programme**

The admission exam for Veterinary Medicine is predisposed by the Ministry for Education (MIUR); it is the same for both programmes and has identical content throughout Italy.

It consists of 60 multiple-choice questions with five possible answers. The candidate has to choose one, discarding wrong, arbitrary or less probable answers. The topics are general knowledge, logical reasoning, biology, chemistry, physics and mathematics.

Based on the subjects and arguments listed in Annex A, which is an integral part of the present announcement, the exam consists of 2 questions on general knowledge, 20 on logical reasoning, 16 on biology, 16 on chemistry and 6 on physics and mathematics.

**Art. 9 Ranking lists, minimum score and assessment criteria**

Within the limits of the places available for enrolment, are admitted to the programmes, in decreasing order of score, EU and non-EU applicants resident in Italy who comply with art. 26 law no. 189/2002, who obtained a minimum score of 20 points in the admission exam. Candidates who are not eligible are not included in the ranking list.

Are equally admitted, within the limits of the places reserved for them, in decreasing order of score, non-EU applicants resident abroad to whom is not applicable the threshold of the preceding subparagraph.

Unfilled positions in the ranking list of non-EU citizens resident abroad cannot be filled by EU and non-EU citizens complying with art. 26 law no. 189/2002 since belonging to separated contingents and destined to different purposes.

A maximum of 90 points can be scored in the test, as follows:

- 1.5 points for a correct answer
- minus 0.4 (-0.4) points for a wrong answer
- 0 points for no answer.

The CINECA, on the basis of the score calculated according to the above criteria, draws up a single national ranking list for EU and non-EU citizens complying with art. 26 law no. 189/2002.

The ranking list for non-EU citizens resident abroad is defined by the University.

In the case of equal scores, the candidate with the higher score in logical reasoning, general knowledge, biology, chemistry, physics or mathematics (in that order) has priority.
In the case of further equal scores, the younger student has priority.

**Art. 10 - Publication of ranking lists and deadlines for enrolment**

On **20 September 2017**, on behalf of MIUR, CINECA publishes the scores identified only by label code at http://www.universitaly.it, in observance of the laws protecting personal data, ensuring anonymity of candidates.

The results remain available on the candidates’ area of the website until conclusion of the procedure.

On **29 September 2017** candidates can view their answer forms, scores and personal data form by accessing their personal page on the UNIVERSITALY website.

On **3 October 2017**, the national ranking list by name is published in the students’ area of the UNIVERSITALY website.

With each update of the ranking list, candidates who:

a) achieve a position in the list included among the number of places available for their programme of first preference are **ASSIGNED** and must enrol at the **ASSIGNED** campus in the assigned programme by the indicated deadline. If the deadline is not observed, the candidate loses his right to enrol. No excuses for missing the deadline are accepted.

b) do not achieve a position in the list among the number of places available for their programme of first preference are **RESERVED** for a subsequent choice. In that case the candidate can enrol in the programme at the campus of subsequent choice by the indicated deadline, or await the conclusion of enrolments of those with priority in the ranking list, to see if additional places become available for his/her first preference. If a **RESERVED** candidate enrols, all the other preferences expressed are automatically cancelled.

On **3 October 2017**, on the basis of the ranking list and the number of places available at the universities, the names of candidates **ASSIGNED** and **RESERVED** for the programmes and campuses indicated as their first choices are published in the students’ area, and each university receives a list of these candidates.

The ranking lists of each degree programme are updated as follows for enrolment purposes:

1) On **3 October 2017** the ranking list (by name) of each degree programme is published in the students’ area of the website, with the candidates’ scores, positions in the ranking list and the campus to which they have been **ASSIGNED**, or (considering the position in the ranking list of all the candidates with precedence and their choice of campus) in which the candidate has been **RESERVED** a place or **WAITLISTED**;

2) **ASSIGNED** candidates must enrol according to the procedure of the chosen university. **RESERVED** candidates may do the same. To facilitate management of the national ranking list, for any specific updated ranking list **ASSIGNED** and **RESERVED** candidates have no more than four days to enrol, including the day the ranking list is updated, excluding Saturdays, Sundays and holidays. **ASSIGNED** students who fail to enrol by the fourth-day
deadline are assumed to have foregone their place. RESERVED students who do not enrol do not lose their position in the ranking list.

3) On 12 noon of the fifth day after each updating of the ranking list (point 1), including the day of the publication and excluding weekends and holidays, each university informs CINECA of the names of the students who have enrolled via the corresponding area of their websites.

4) On 12 noon of the fifth day after each updating of the ranking list (point 1), including the day of the publication excluding weekends and holidays, all candidates except those who have enrolled or foregone their place, must confirm their interest in enrolment in the students’ area of the university website. Candidates who do not confirm lose their position in the national ranking list and their right to enrol. No excuses for failure to confirm are accepted.

5) On 11 October 2017, CINECA, having received the information of point 3) and with regard to the position of merit and the preferences expressed, publishes the updated ranking list as described in points from 2) to 4).

6) The procedures and deadlines indicated in points 2) to 4) are repeated after each subsequent updating of the ranking lists until a ministerial provision closes the ranking lists.

7) Universities can only enrol students with sufficiently high positions in the ranking list in second and subsequent years after recognition of their credits and after ascertaining that places are available for the year in question, in the framework of the previously planned cohort of students. These procedures (and students foregoing their places after enrolment) lead to updating of the ranking list to the exclusive benefit of students who have not enrolled but who hold a sufficiently high position, provided the procedures are communicated while places are still available for the programme in that university. Any further requests to change or the foregoing of places after all places in the programme have been filled does not lead to further updating of the ranking list.

8) After recognition of credits by the university in question, enrolments in second and subsequent years can only occur in relation to places that were defined in the annual planning decrees if places become available because a student foregoes a place, transfers or abandons the year of the programme in question.

Students already enrolled in the same single cycle degree programme at another Italian or foreign university are the only candidates exempted from passing the admission exam. These students have to submit a transfer application with the procedures and the deadlines settled by the University Regulations regarding transfer applications for the programme Veterinary Medicine at the University of Milan. The document, as well as and the number of places available for the second and subsequent years, is published on the University website at the page (Italian text) http://www.unimi.it/studenti/matrice/97380.htm#c97382.

Art. 11 - Enrolment procedure

The procedures of enrolment at University of Milan are published at the webpage http://www.unimi.it/ENG/admission/31190.htm#c111598.
Applicants with qualifications gained abroad who enrolled online as indicated above must deliver the following documentation (show original and lodge photocopy) to the Ufficio studenti internazionali – Via Santa Sofia 9/1, Milan - by the deadlines indicated above:

- Upper secondary school diploma, translated into Italian, legalized by the authorities in the country where the qualification was issued and carrying a *Dichiarazione di valore*; or statement of validity issued by ENIC_NARIC centres or by diplomatic missions resident in Italy;
- Certificate of enrolment at university with a list of the exams taken, or certificate of post-secondary education obtained in a non-university higher education Institute if the local education system provides less than 12 years of schooling;
- Certificate of academic eligibility if provided for in the country of origin;
- Any other document stating specific requirements of validity of the title (e.g. Aps for the United States titles, A-level for British titles);
- Valid residence permit (only for non-EU citizens).

Verification of the validity of qualifications gained abroad is conducted on presentation of the official documents. Until then, applicants are admitted to the programme conditionally and may be excluded from the ranking list if they prove not to have the necessary qualifications.

**Non-EU candidates resident abroad** must sit for and pass the Italian language test organised by the University. For details about the test and exemptions please refer to the following webpage [http://www.unimi.it/ENG/admission/31192.htm#c31341](http://www.unimi.it/ENG/admission/31192.htm#c31341).

**Art. 12 - Procedure Manager**

Pursuant to law no. 241 of 7 August 1990 the manager of the procedure related to this announcement is Mr Giuseppe Boffi (Head of the Medicine and Surgery Students Office).

For any further information regarding the content of the call please use the Infostudenti service ([www.unimi.infostudente.it](http://www.unimi.infostudente.it)) by selecting the category: Test, bandi e graduatorie.

Rep. reg. 2508/2017
of 04/07/2017

THE RECTOR
Signed Gianluca Vago
Annex A

Subjects covered in the admission exam for the second cycle degree programmes in Medicine and Surgery, in Dental Medicine, in Veterinary Medicine and in the first cycle degree programmes in the healthcare professions

For admission to the programmes, candidates are tested on general knowledge, especially literature, history, philosophy, sociology, institutions, comprehension and analysis of written texts of different types, and logical-mathematical reasoning.

The knowledge and skills required are those taught in schools under programmes of the Ministry for Education for the final secondary school diploma, and include the scientific subjects of biology, chemistry, physics and mathematics.

**General Knowledge and Logical Reasoning**

The exam tests the candidate's ability to use the Italian language correctly and to pursue an argument logically, coherently with the premises. It consists of multiple choice questions in symbolic or verbal form that may also be formulated with brief propositions. The candidate must exclude wrong, arbitrary and less probable conclusions.

The questions focus on scientific or literary texts by classical or contemporary authors, or on current affairs articles in newspapers, magazines or specialist journals. They also focus on cases or problems, which may be abstract and require different types of logical reasoning to solve.

Tests of general knowledge included in the school syllabus complete this section of the admission exam.

**Biology**

- The chemistry of living things
- The biological importance of weak interactions
- Organic molecules in living organisms and their respective functions. The role of enzymes.
- The cell as the basis of life
- Cell membrane: structure and function - membrane transport
- Cell structures and their specific functions
- Cell cycle and cell reproduction: mitosis and meiosis, chromosome complement and chromosome mapping
- Bioenergetics
- The energy currency of cells: ATP
- The processes of oxidation and reduction in living things
- Reproduction and Inheritance
- Life cycles. Sexual and asexual reproduction
• Mendelian genetics: laws and applications
• Classical genetics: chromosome theory of inheritance - models of inheritance
• Molecular genetics: DNA structure and duplication, genetic code and its translation, protein synthesis. DNA of prokaryotes. Chromosome structure of eukaryotes. Regulation of gene expression.
• Human genetics: transmission of mono and multi-factorial traits, hereditary diseases with autosomal and X-linked transmission.
• Biotechnology: recombinant DNA and its potential bio-technological applications.
• Inheritance and environment.
• Mutations. Natural and artificial selection. Evolutionary theories. The genetic basis of evolution.
• Anatomy and physiology of animals and humans
• Animal tissues
• Anatomy of the major organs and their functions and interactions in humans
• Homeostasis

Chemistry

• The constitution of matter: states of matter; heterogeneous and homogeneous systems; compounds and elements.
• Ideal Gas Laws
• Atomic structure: Elementary particles, atomic number and mass number, isotopes, electronic structure of atoms of the elements.
• The periodic table of elements: Groups and periods, transition elements, periodic properties of elements: atomic radius, ionization potential, electron affinity, metals and non-metals; relations between electronic structure, position in the periodic table and properties.
• Chemical bonds: ionic bonds, covalent and metallic bonds, bond energy, bond polarity, electronegativity, intermolecular bonds.
• Fundamentals of inorganic chemistry: nomenclature and main properties of inorganic compounds: oxides, hydroxides, acids, salts.
• Chemical reactions and stoichiometry: atomic and molecular weight, Avogadro constant, concept of mole and its applications, elementary stoichiometric calculations, types of chemical reactions.
• Solutions: solvent properties of water, solubility, the main ways of expressing the concentration of solutions.
• Equilibrium in aqueous solutions.
• Elements of chemical kinetics and catalysis.
• Oxidation and reduction: Oxidation number, the concepts of oxidising and reducing agents, balancing simple reactions.
• Acids and bases: concepts of acid and base, acidity, neutrality and alkalinity of aqueous solutions, pH, buffers, hydrolysis.
• Fundamentals of organic chemistry: bonds between carbon atoms; molecular, structural and displayed formulae; concept of isomers; aliphatic, alicyclic and
aromatic hydrocarbons; functional groups: alcohols, ethers, amines, aldehydes, ketones, carboxylic acids, esters, amides. Elements of nomenclature.

Physics

- **Measures**: direct and indirect measures, fundamental and derived quantities, physical dimensions of quantities, knowledge of the metric system and the CGS System of Units, Technical (or practical) (ST) and the International System (SI) of Units (names and relationships between fundamental and derived units), and multiples and submultiples (names and values).
- **Motion**: kinetic quantities, various types of motion with particular regard to uniform and uniformly accelerating rectilinear motion, uniform circular motion, harmonic motion (for all motion: definition and relationships between measures).
- **Fluid mechanics**: pressure and its units of measurement (not only in the SI system). Archimedes principle. Pascal’s principle. Stevino’s law.

Mathematics

- **Functions**: basic concepts of functions and their graphical representations (domain, codomain, sign, maxima and minima, increasing and decreasing, etc.). Elementary functions: whole and fractional algebraic functions, exponential, logarithmic and trigonometric functions. Composite functions and inverse functions. Trigonometric equations and inequalities.
- **Geometry**: polygons and their properties. Circle and circumference. Measurement of