SAPIENZA
UNIVERSITÀ DI ROMA

Faculty of Medicine and Psychology
Faculty of Pharmacy and Medicine
Faculty of Medicine and Dentistry

2018-2019 ACADEMIC YEAR

Call for applications and admission procedures for the Degree Programme in

Nursing
Class: L/SNT1

Restricted access Degree Programme

Code to be indicated in the admission test registration form:
28614

Brief overview of the call for applications

	What to do	See point…
A.	Carefully read the whole call for applications and keep it	**All points**
B.	Register on Infostud	**3**
C.	Print the admission test payment slip having regard to writing the correct degree programme code	**3**
D.	Make the payment with the payment slip (over the counter or online) at a Unicredit branch **within the deadline indicated on the payment slip and keep the proof of payment[1]**	**3**
E.	Check the date and time for the admission test and put it in your diary	**2**
F.	Go to CAF (Tax Assistance Centre) to have your ISEE 2018 calculated: don't wait until the last minute because it takes several weeks for the document to be issued!	**9**
G.	Get ready for the test	**7**
H.	A few days before the test, check on the website the test room in which you will have to take the admission test and try to properly understand where it is located, so you won't risk arriving late. Also check your e-mail: you might have received information on the e-mail address you gave when registering on Infostud	**6**
I.	On the day of the test remember to take a valid identification document and the proof of payment for the admission test	**6**
J.	Check the ranking on the website on the date indicated in the call for applications and read the notes about Additional Learning Requirements (OFA)	**7.1 and 8**
K.	If you were admitted to the degree programme you may enrol by paying the first instalment of tuition fees, after having communicated your ISEE 2018 **within the deadline indicated in the payment slip that you must print from Infostud.** **After having made the payment, you have enrolled and the only thing you need to do is go to lectures**	**8 and 9**
L.	Within 60 days from enrolment, you must send the documents for the obligatory vaccinations	**9**
M.	Any benefits for tuition fees for the academic year 2018/2019 are indicated on the webpage https://www.uniroma1.it/it/pagina/tasse-contributi	**9**
N.	Didn't you pass the admission test? No worries: the admission test you took allows you to enrol in other degree programmes	**11**

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[1] If you have special needs because you are disabled or have specific learning disorders you have to follow the procedures described in point 5 of this call for applications

THE RECTOR

HAVING REGARD TO   the Law 2 August 1999, No.264, containing regulations about access to university degree programmes;
HAVING REGARD TO   the D.M. 22 October 2004, No. 270;
HAVING REGARD TO   the deliberation of the Faculty Committee of Pharmacy and Medicine of 15 Mach 2018;
HAVING REGARD TO   the deliberation of the Faculty Committee of Medicine and Dentistry of 20 February 2018;
HAVING REGARD TO   the deliberation of the Faculty Committee of Medicine and Psychology of 22 February 2018;
HAVING REGARD TO   the deliberation of the Academic Senate of 27 March 2018;
HAVING REGARD TO   the deliberation of the Management Board of 5 April 2018
HAVING REGARD TO   the D.M. 26 April 2018 No. 337

ORDERS

Students enrolment in the Degree programme in **Nursing,** for the academic year 2018-2019, is subject to successfully passing an **admission test**.

1. Admission requirements

The admission test is open to:
- Italian citizens, EU citizens wherever they may reside and non-EU citizens legally staying in Italy referred to in article 26 of the Law No. 189/2002, holding an Upper Secondary Education diploma (see Attachment 1). **Candidates holding a four-year Upper Secondary Education diploma, if successful, will have to fulfill a 20 credits (CFU/ECTS) educational debt.**
- non-EU citizens permanently resident abroad, holding a study visa (see Attachment 1).

Students who already hold an academic qualification (gained in Italy or abroad) and those who are coming from other degree programmes or university diplomas must follow the same instructions indicated in the points below and must take the admission test.

2. Admission test date and number of places available

The admission test is going to take place on **12 September 2018.**
Candidates must be at the test rooms they have been assigned to at **9.00**, the admission test starts **at 11.00.**

The provisional number of places available for Italian citizens, EU citizens wherever they may reside and non-EU citizens legally staying in Italy referred to in article 26 of law No. 189/2002 **is 10.**

The provisional number of places available for candidates from non-EU countries not legally staying in Italy **is 5.**

The number of places available will be defined after the ministerial decree on the planning of places available for the academic year 2018-2019 is issued.

Once the above-mentioned planning is determined the number of places available will be published in the programmes catalogue https://corsidilaurea.uniroma1.it/ on the degree programme page.

3. Registration deadlines and procedures for the admission test

Registration for the admission test is subject to the payment of a € 35,00 admission test contribution that must be made at any Italian UniCredit branch starting from **17 July 2018** and **with no exceptions** within **8 August 2018.**

To make the payment you must exclusively use the personalised form you can print through the online computerized system of the University, following the instructions at https://www.uniroma1.it/it/pagina/infostud.
The payment may also be made online, with a credit card payment (for further information on payment methods go to https://www.uniroma1.it/it/pagina/come-pagare): on the last day available for the payment, the online payment must be processed within the bank's closing hours (15.45).
On no account will the admission test contribution be refunded.

Please Note: keep the registration number issued by the computerized system because it is essential for the other stages of the procedure.
Important: Possible communications will be sent to the e-mail address that has been given when registering on Infostud. We recommend that candidates verify the address is correct and that they constantly check their inbox.

The form is at the same time:
- self-certification of personal data;
- application to register for the selection;
- payment slip for the test registration contribution.
The proof of payment must be presented on the day of the admission test.

Applications for the selection sent via post or payments made using different methods from those described will not be accepted.

Candidates who registered for different admission tests, even if by mistake, will not be allowed to take the admission test: the degree programme code indicated in the proof of payment will be the only valid attestation for this purpose, and must be the same as the one indicated in the present call for applications.

4. Candidates holding a foreign qualification

In order to register for the admission test, Italian candidates, EU candidates and non-EU candidates **legally staying in Italy** holding a foreign qualification, must follow the procedures indicated in point 3.

Non-Eu citizens permanently resident abroad must send, within the payment deadline for the admission test contribution, an e-mail to accesso_extraeu@uniroma1.it specifying the information below:

- name and surname;
- registration number;
- name of the degree programme (for which you want to take the admission test);
- citizenship.

To enrol in the degree programme, successful candidates must go, within the deadlines (see point 8), to the Office for Students with a Foreign Qualification (see point 12) to have their educational qualification validated and the documents required by MIUR (Ministry of Education, University, and Research) verified.

5. Information for disabled students and services for students with Specific Learning Disorders (SLD)

Candidates with a recognised disability by virtue of article 3 of law No. 104 of 1992 and/or with an impairment severity rating equal to or greater than 66%, that need specific assistance, or additional time to carry out the admission test, **must submit an explicit request to the Infostud System.**

Information on the procedure is available at https://www.uniroma1.it/it/pagina/disabilita-e-dsa or writing to supportidisabilidsa@uniroma1.it.

Candidates are allowed:
- up to 50% extra time compared to the normal time allowed for the admission test;
- according to the certifications presented, a tutor for writing and/or reading, a Sign Language Interpreter, a basic calculator, a video enlarger, an accessible desk.

Particular cases will be examined taking into consideration the certifications submitted.

Requests must arrive within the registration deadline for the admission test (see point 3) and must be accompanied by the appropriate supporting certification issued by "Istituto Nazionale della Previdenza Sociale" (INPS) or by the competent "Azienda Unità Sanitaria Locale" (A.U.S.L.).

Students with Specific Learning Disorders - SLD, referred to in law No.170/2010 and in Ministerial Decree No. 5669/2011, that in order to carry out the admission test, need specific aids in relation to the type of SLD **must submit an explicit request to** the Infostud System.

Information on the procedure is available at https://www.uniroma1.it/it/pagina/disabilita-e-dsa or writing to supportidisabilidsa@uniroma1.it.

Candidates are allowed:
- 30% extra time to carry out the admission test;
- a basic, non-scientific, calculator in relation to the certification submitted.

Particular cases will be examined taking into consideration the certifications submitted.

Requests must arrive within the registration deadline for the admission test (see point 3) and must be accompanied by the appropriate supporting certification issued by units of the National Health Care System or by specialists or units accredited by the System.

The SLD certification must be detailed and clear, referral to diagnosis codes and to explicit wording of the SLD is necessary (reading disorder and/or disorder of written expression and/or mathematics disorder).

The diagnosis must have been updated after 3 years if it had been issued when the student was under 18 years old.

Please Note: disabled students or students with SLD resident abroad who wish to benefit from the measures mentioned previously, must submit a certification attesting their disability or SLD status issued in their Country of residence, accompanied by a certified translation in Italian or in English**.**

6. Admission test procedures and venues

Identification procedures

The test rooms for the admission test will be published on 10 September 2018 on https://corsidilaurea.uniroma1.it/ on the degree programme page and will also be affixed at the Health Professions Student Affairs Office (see point 12).

Candidates will be allowed to enter the test room only after identification procedures are completed: it is, therefore, obligatory to present a valid identification document and the proof of payment.

How the test takes place

Each student, once the identification procedures are over, will be given:
- an envelope containing the question paper and the answer sheet;
- a pre-printed candidate data sheet with the candidate's personal details.

b. To avoid being excluded, during the admission test candidates:
- cannot keep with them bags or backpacks, books, notes, paper, mobile phones or other electronic devices;
- cannot exchange information or talk to other candidates.

c. The board of supervisors during the test will be composed of the President of the Board of Examiners and of units of the administrative staff (in a variable number proportional to the number of candidates per test room).

7. Topics of the admission test and scoring criteria

On the basis of the programmes referred to in Attachment A, that is an integral part of the present decree, the admission test consists of sixty (60) multiple-choice questions with five answers, between which candidates have to select only one, rejecting conclusions that are wrong, arbitrary or less likely, on topics concerning:
- general knowledge and logical reasoning
- biology
- chemistry
- physics and mathematics

The sixty (60) multiple-choice questions focus on the topics referred to in Attachment A, that is an integral part of the present decree, and are divided as follows: two (2) questions for general knowledge and twenty (20) for logical reasoning, eighteen (18) for biology, twelve (12) for chemistry and eight (8) for physics and mathematics.

The time given to carry out the test is 100 minutes.

The scoring is attributed following the criteria indicated below:
 1,5   points for each correct answer;
  0   for each answer not given;
 -0,4   points for each wrong answer.

In the event of any tie, the candidate score that shall prevail is the one achieved, in descending order, respectively, in logical reasoning, general knowledge, biology, chemistry, physics, and mathematics.

In the event of any tie after having applied the criteria mentioned above the younger candidate shall prevail.

NB The admission test is considered as not passed for candidates with a score equal to zero or with a negative score.

7.1 Additional Learning Requirements (OFA)

Following the admission test results, the Faculty gives Additional Learning Requirements in Biology and/or Chemistry, to successful candidates with a total score **below 10** and who answered correctly to **less than half the number of questions** concerning the single topics of Biology and Chemistry.
Therefore the set thresholds for the topics, under which Additional Learning Requirements (OFA) are given, are:

Topic	Number of correct answers
Biology	9
Chemistry	6

In-class Biology and Chemistry courses are scheduled in order to allow the fulfillment of Additional Learning Requirements (OFA); these courses will take place within October 2019 following a timetable that will be promptly communicated.

Additional learning requirements (OFA) are fulfilled by passing a specific test, or alternatively, by successfully taking the exam of the subject that includes the topic of the OFA (to be passed within 31st October 2019).

8. Ranking publication and obligations for successful students and for students who became successful with ranking updates

The ranking with registration numbers is going to be published by **19 September 2018** on the academic programmes catalogue https://corsidilaurea.uniroma1.it/ at the degree programme page.

Successful candidates must enrol within **26 September 2018.**

Successful students that are going to graduate within **30 November 2018** must sign a declaration, **within 26 September 2018**, at the Student Affairs Office, for the confirmation of their intention of enrolling immediately after earning the degree.

Candidates who do not enrol within the prescribed deadline will be deemed to have given up their place and the places they leave vacant will become available for subsequent candidates in the ranking. For this reason, until there are available places, lists of candidates who became successful with ranking updates will be published respecting the deadline calendar below:

3 October 2018	Publication of the first list of candidates who became successful with the ranking update
8 October 2018	Enrolment deadline

Students involved in this ranking update who are going to graduate within **30 November 2018** must sign a declaration, **within 8 October 2018**, at the Student Affairs Office, for the confirmation of their intention of enrolling immediately after earning the degree.

12 October 2018	Publication of the second list of candidates who became successful with the ranking update
17 October 2018	Enrolment deadline for candidates who became successful with the second ranking update

Students involved in this ranking update who are going to graduate within **30 November 2018** must sign a declaration, **within 17 October 2018**, at the Student Affairs Office, for the confirmation of their intention of enrolling immediately after earning the degree.

22 October 2018	Publication of the third list of candidates who became successful with the ranking update
26 October 2018	Enrolment deadline for candidates who became successful with the third ranking update

Students involved in this ranking update who are going to graduate within **30 November 2018** must sign a declaration, **within 26 October 2018**, at the Student Affairs Office, for the confirmation of their intention of enrolling immediately after earning the degree.

Important: Any further ranking updates will be managed exclusively by the Student Administration Office with e-mail communications sent to the e-mail address that candidates gave when registering on Infostud.

All these operations will be carried out strictly within **14 December 2018. We recommend that candidates check the inbox of the e-mail address they gave when registering on Infostud.**

Please Note
Candidates who became successful following ranking updates who do not carry out their enrolment within the prescribed deadline will be deemed to have given up their place and the places they leave vacant will become available for subsequent candidates in the ranking.

Enrolment procedures are indicated in point 9 (see below).

9. Enrolment Procedures

Enrolment procedures vary according to the different types of students (see below).
Enrolment is obtained by paying the first instalment of tuition fees (if owed) for the academic year 2018-2019 to which the regional fee (if owed) and the stamp duty must be added.

Enrolment procedures, the amount of tuition fees, deadlines and rules for the presentation of ISEE 2018 calculation, tax benefits and payment methods are published at:
https://www.uniroma1.it/it/pagina/tasse-contributi.

Please Note: the request for the ISEE 2018 calculation must be made at CAF (Italian Tax Assistance Centre) at least 30 days before the enrolment deadlines, that is because new regulations require more time for the certification releasement
(Dpcm 159/2014).

Tuition fees must be paid at any Italian Unicredit S.p.a. branch or online with a credit card payment (for further information on payment methods check page https://www.uniroma1.it/it/pagina/come-pagare): on the last day available for the payment, the online payment must be processed within the bank's closing hours (15.45).

On the enrolment form, the corresponding degree programme code must also be indicated, this code is the same as the one specified in the present call for applications and used for the admission test registration: **28614**.

Successful candidates holding an Italian qualification must make the enrolment payment, **within the deadlines indicated in point 8**, using the personalised form that has to be printed from the website https://www.uniroma1.it/it/pagina/infostud-immatricolazione and following the specific instructions.

To enrol, **non-EU successful candidates permanently resident abroad** must go**, within the deadlines indicated in point 8**, to the Office for Students with a Foreign Qualification (see point 12) to submit the documents required by MIUR (Ministry of Education, University, and Research). **Within the deadlines indicated in point 8,** they must make the payment printing the payment slip from https://www.uniroma1.it/it/pagina/infostud-immatricolazione and following the specific instructions.

To enrol, **successful candidates holding a qualification gained abroad (Italians, EU and non-EU citizens legally staying in Italy referred to in Article 26 of Law No. 189/2002)**, must go to the Office for Students with a Foreign Qualification (see point 12) to have their educational qualification validated and the documents required by MIUR (Ministry of Education, University, and Research) verified, and must make, **within the deadlines indicated in point 8**, the enrolment payment, printing the payment slip from the page https://www.uniroma1.it/it/pagina/infostud-immatricolazione and following the specific instructions.

Successful candidates already enrolled in other Degree Programmes at Sapienza University of Rome must submit a transfer application to the Student Affairs Office of the

degree programme they are coming from, pay a € 65,00 transfer fee, as a refund for transfer expenses, and hand in a copy of both these documents to the Health Professions Student Affairs Office **strictly within the deadlines indicated in point 8;** they also must make, **within the deadlines indicated in point 8,** the payment for the first instalment of tuition fees for the new degree programme, getting the payment slip at the Health Professions Student Affairs Office (see point 12).

Please Note: after having paid the transfer fee, students will not be allowed to take exams for the degree programme they have come from.

Successful candidates coming from other Universities must submit their transfer application to the University they are coming from, pay the € 65,00 transfer fee, as a refund for transfer expenses, and hand in a copy of both these documents to the Health Professions Student Affairs Office (see point 12) **strictly within the deadlines indicated in point 8**. The student affairs office will then give these students the payment form for the enrolment tuition fee payment that must be made **within the deadlines indicated in point 8**

Please Note: after having paid the transfer fee students will not be allowed to take exams for the degree programme they have come from.

Obligatory vaccinations
Successful students, when enrolling, declare their commitment to have the tuberculosis Mantoux test done, within 60 days from enrolment, as indicated in the guidelines for tuberculosis' assessment (Agreement 15.03.2013 of the State-Regions Conference) and in D.P.R. 7.11.2001, No. 465, that rules the anti-tuberculosis vaccination; this test will have to be done at the ASL (Local Health Board) of the candidate's place of residence.
Furthermore, we recommend, by virtue of the Law No. 165 of 27.5.1991, to have the vaccine against viral hepatitis B done, available for free for those who work, study or volunteer in the healthcare sector, at the ASL (Local Health Board) of the municipality of residence.

Within 31 January 2019 students must send the certifications for these vaccinations following the proper procedure described at http://www.uniroma1.it/archivionotizie/vaccinazioni-i-corsi-di-area-medica.

10. Withdrawal procedure after enrolment
Students who after having enrolled wish to withdraw from enrolment in the degree programme must go to the Student Affairs Office (see point 12) and submit a written declaration on stamp-impressed paper or on plain paper with a € 16,00 revenue stamp on it. Students who withdraw from enrolment have no right to receive a refund for the tuition fees they have already paid.

11. Validity of the admission test for other degree programmes
Students who took the admission test referred to in this call for applications may enrol in:
  a) The degree programme in Bioinformatics, **if there are places available after the whole ranking updating process has been completed,** without taking the admission test for the degree programme;
These students have to go to the Student Affairs Office of the Degree programme in which they want to enrol within **5 November 2018** and have the enrolment payment slip printed.

  b) all the degree programmes with knowledge assessment tests (excluding those in Mathematics, Physics and Natural Science), **if they achieved a score equal to or higher than 20,** without taking the required test for these degree programmes.

These students must make the payment for the first instalment of enrolment tuition fees within **5 November 2018**, with the personalised form that has to be printed through the Infostud System and on which the Degree Programme code of the degree they want to enrol in must be indicated (see the related call for applications).

12. Information publication and useful contact information

The present call for applications is published on the web page of the degree programme, in the academic programmes Catalogue https://corsidilaurea.uniroma1.it/

Any news or updates will be published on the degree programme page.

Useful contact information:

Health Professions Student Affairs Office

Location	Piazzale Aldo Moro, 5 - 00185 - Roma (General Services Building - Staircase B ground floor)
Opening hours	Mon, Wed, Fri, from 8.30 to 12.00 Tue and Thu from 14.30 to 16.30 **NB The Office will be closed from 13 to 17 August**
E-mail	segrstudenti.professionisanitarie@uniroma1.it
Skype	segreteria_professionisanitarie (during front desk opening hours)

Office for Students with a Foreign Qualification

Location	Roma, Città Universitaria, P.le Aldo Moro, 5 General Services Building staircase C II floor
Opening hours	Mon, Wed, Fri, from 8.30 to 12.00 Tue and Wed from 14.30 to 16.30 **NB The Office will be closed from 13 to 17 August**
Skype	Settoretitolistranieri (during front office opening hours)
E-mail	settoretitolostraniero@uniroma1.it

CIAO – HELLO Office and welcome events

Location	Roma, Città Universitaria, P.le Aldo Moro, 5 – portico of the Rectorate
Opening hours	from Mon to Fri, from 9.30 to 17.00 **NB The Office will be closed from 13 to 17 August**
E-mail	ciao@uniroma1.it hello@uniroma1.it
Website	https://www.uniroma1.it/it/pagina/ciao-informazioni-gli-studenti https://www.uniroma1.it/it/pagina/hello-welcome-office

Office for Students with Special Needs

Location	Roma, Città Universitaria, P.le Aldo Moro, 5 – portico of the Rectorate
Opening hours	from Mon to Fri from 09.00 to 13.00 and from 15.00 to 17.00 **NB The Office will be closed from 13 to 17 August**
E-mail	sportello@uniroma1.it
Freephone	800-410960

13. Persons in charge of the administrative procedure and competent court

By virtue of articles 4, 5 and 6 of the law 241/90 the person in charge of the administrative procedure is Maria Cristina Paolotti, Department Head of Health Professions Degree Programmes, and, for the information technology part, Silvia Avella, Head department of the Mesiv Sector (InfoSapienza ICT Area).

Any dispute will fall within the exclusive jurisdiction of the Courts in Rome.

Rome, 5 July 2018

THE RECTOR

Attachment A

Programmes related to the questions of the admission test for degree programmes in Health Professions

Admission to degree programmes requires general knowledge, with specific understanding of the literary, historical-philosophical, social and institutional fields, as well as the ability to analyse written texts of various kinds and logical-mathematical reasoning skills.
The expected knowledge and abilities refer to the educational preparation provided by school institutions congruently with the Ministerial Programmes, especially during upper secondary school for the final State Exam preparation, these programmes also include scientific branches of knowledge of Biology, Chemistry, Physics, and Mathematics.

General knowledge and Logical reasoning
Assessment of the ability to properly use Italian language and to reason logically, congruently with the introductory statements expressed, symbolically or verbally, in the multiple-choice questions that may be sometimes made up of brief clauses. Candidates have to answer the multiple-choice questions rejecting conclusions that are wrong, arbitrary or less likely.
The multiple-choice questions will focus on literary essays or narrative texts of classic or contemporary authors, or on the latest news shown on newspapers or on generalist or specialised magazines; they will also focus on problem-solving, dealing with the conceptual nature of problems, the solution of which requires different kinds of logical reasoning.
Multiple-choice questions on general knowledge, involving knowledge acquired during school years, complete this assessment field.

Biology
The chemistry of living things.
The biological importance of weak interactions.
Organic molecules in organisms and their respective functions. The role of enzymes.
The cell as the basis of life.
Cell theory. Cell size. Animal and plant prokaryotic and eukaryotic cells. Viruses.
The cell membrane: structure and functions – transport across the membrane.
Cellular structures and their specific functions.
Cell cycle and cell division: mitosis and meiosis – chromosomes and chromosome maps.
Bioenergetics.
The energy currency of cells: ATP.
Redox reductions in living things.
Energetic processes: photosynthesis, glycolysis, aerobic respiration and fermentation.
Reproduction and Inheritance.
Life cycles. Sexual and asexual reproduction.
Mendelian genetics: Mendel's laws and their applications.
Classical genetics: chromosomal theory of inheritance – inheritance patterns.
Molecular genetics: structure and replication of DNA, the genetic code, protein synthesis.
Prokaryotic DNA. Eukaryotic chromosome structure. Genes and regulation of gene expression.
Human genetics: mono- and multifactorial character transmission; hereditary diseases autosomal and linked to chromosome X.
Biotechnologies: recombinant DNA technology and its applications.
Inheritance and environment.
Mutations. Natural and artificial selection. Evolutionary theories. The genetic basis of evolution.
Anatomy and physiology of animals and humans.
The animal tissues.
Anatomy and physiology of systems and apparatuses in humans and their interactions. Homeostasis.

Chemistry

The composition 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 different elements.

The periodic table of elements: groups and periods; transition elements. Periodic properties of elements: atomic radius, ionization potential, electronic affinity, metallic character.

The relationships between electronic structure, position in the periodic table and element properties.

The chemical bond: ionic, covalent and metallic bonds. Binding energy. Polarity of bonds. Electronegativity. Intermolecular bonds.

Fundamentals of inorganic chemistry: nomenclature and main properties of inorganic compounds: oxides, hydroxides, acids, salts.

Chemical reactions and stoichiometry: atomic mass and molecular mass, Avogadro's number, mole concept and its application, elementary stoichiometric calculations, balancing simple reactions, different types of chemical reaction.

Solutions: solvent properties of water, solubility, the main ways of expressing the concentration of solutions.

Equilibria in aqueous solution.

Chemical kinetics and catalysis.

Oxidation and reduction: oxidation number, concept of oxidizing and reducing. Balancing of simple reactions.

Acids and basis: the concept of acid and base. Acidity, neutrality and basicity of aqueous solutions. The pH. Hydrolysis. Buffer solutions.

Fundamentals of organic chemistry: bonds between carbon atoms, crude formulas and structure formulas, the concept of isomerism. Aliphatic, alicyclic and aromatic hydrocarbons. Functional groups: alcohols, ethers, amines, aldehydes, ketones, carboxylic acids, esters, amides. Chemical 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 International System (SI), of units of measurement (names and relationships between fundamental and derived units), multiples and sub-multiples (names and values).

Kinematics: kinematic quantities, various types of motion with particular regard to uniform and uniformly rectilinear motion; uniform circular motion; harmonic motion (for all motions: definition and relationships between kinematics quantities).

Dynamics: vectors and vector operations. Forces, moments of forces about a point. Moment of a force couple. Vector composition of forces. Definition of mass and weight. Acceleration due to gravity. Density and specific weight. The law of universal gravitation, 1st, 2nd e 3rd laws of motion. Work, kinetic energy, potential energy. The principle of conservation of energy. Impulse and quantity of motion. The principle of conservation of the quantity of motion.

Fluid mechanics: pressure, and its unit of measure (not only in the SI system). Archimede's Principle. Pascal's Principle. Stevino's law.

Thermology, thermodynamics: thermometry and calorimetry. Specific heat, heat capacity. Mechanisms of heat propagation. Changes of state and latent heats. Ideal Gas Laws. First and second principle of thermodynamics.

Electrostatic and electrodynamics: Coulomb's law. Electric field and electric potential. Dielectric constant. Capacitors. Capacitors in series and in parallel. Direct current. Ohm's law. Kirchhoff's Principles. Electrical resistance and resistivity, electrical resistances in series and in parallel. Work, Power, Joule effect. Generators. Electromagnetic induction and alternating currents. Effects of electrical currents (thermal, chemical and magnetic).

Mathematics

Numerical sets and algebra: natural numbers, integers, rational numbers, real numbers. Sorting and comparison; scales and scientific notation. Operations and their properties. Proportions and percentages. Powers with integer and rational exponents and their properties. Roots and their properties. Logarithms (base 10 and base e) and their properties. Elements of combinatoric. Algebraic and polynomial expressions. Major products, n^{th} power of binomial expansions, factorisation of polynomials. Algebraic fractions. Algebraic equations and inequalities of the first and second order. Systems of equations.

Functions: basic concepts of functions and their graphical representation (domain, codomain, sign, maximum and minimum, increasing and decreasing, etc.). Elementary functions: whole and fractional algebraic functions, exponential, logarithmic and trigonometric functions. Composite and inverse functions. Trigonometric equations and inequations.

Geometry: polygons and their properties. Circle and circumference. Measurements of lengths, surfaces, and volumes. Isometries, similarities and equivalences in the plane. Geometric loci. Measurement of angles in degree and radians. Sine, cosine, tangent of an angle and their significant values. Trigonometric formulas. Solving triangles. Cartesian reference system in a plane. Distance between two points and the midpoint of a segment. Equation of a straight line. Conditions for parallel and perpendicular lines. Distance of a point to a line. Equation of the circle, the parabola, the hyperbola, the elipse and their representation in the Cartesian plane. Pythagoras' theorem. Euclid's theorems (first and second).

Probability and statistics: frequency distributions and their graphical representations.

Concept of random experiment and event. Probability and frequency.

ATTACHMENT 1
QUOTAS AND EDUCATIONAL QUALIFICATIONS FOR ADMISSION
EU CITIZENS AND EU-EQUIVALENT CATEGORIES
For the specific purposes referred to in the present dispositions the following categories **are considered as having equivalent status to EU citizens**:

- citizens from Norway, Iceland, Liechtenstein, Switzerland and Republic of San Marino;
- foreign citizens holding an EU residence permit for long-term residents (previously known as "carta di soggiorno") or a valid residence permit (for paid or self-employed employment, for family reasons, for asylum, for subsidiary protection, for humanitarian reasons, or for religious reasons);
- foreign citizens that have been legally staying in Italy for at least one year on the date of the presentation of the application to register for the admission tests (holding a different residence permit from the types mentioned above) that obtained an Upper Secondary education diploma in Italy;
- foreign citizens holding final diplomas issued by state schools and state-equivalent private schools located abroad o by international schools in Italy or abroad that have bilateral arrangements or special regulations for the recognition of educational qualifications;
- citizens holding a valid study residence permit enrolled in previous academic years in a degree programme or second cycle degree programme at an Italian University;
- the staff of foreign diplomatic offices as well as International Organisations based in Italy - accredited either by the Italian Government or by the Holy See- along with their family members limited to husband/wife and children.

We hereby specify that in the event of candidates with **dual citizenship,** one of which Italian, the Italian citizenship shall prevail.

PLEASE NOTE: Non-EU citizens holding a residence permit for study purposes who formally withdrew from their studies at this or at other Universities lose the requirements needed to reside in Italy and have their residence permit revoked. These students must go back to their Country of origin and start the pre-registration procedures again through the competent Italian diplomatic representations for the territory following the instructions for the admission of foreign citizens legally resident abroad.

NON-EU CITIZENS PERMANENTLY RESIDENT ABROAD
Non-EU citizens permanently resident abroad, holding a study entry visa for University Enrolment ("Immatricolazione Università") for the academic year 2018/2019, in order to be admitted to the admission test must obligatorily pass the Italian language test, with the exception of the exoneration cases indicated in the law in force on the subject available at http://www.studiare-in-italia.it/studentistranieri/
To fall into this category, you must have submitted regular pre-registration application, to the Italian Representation in your country, within the deadlines indicated in the information notice of the Ministry of Education, University and Research (MIUR).

CHINESE CITIZENS PARTICIPATING IN THE "MARCO POLO" PROJECT
There are specific quotas for Chines citizens participating in the "Marco Polo" Project who submitted a preregistration application to the Italian Diplomatic-Consular Representations in China.
Specific instructions for these candidates are available on the website of the Ministry of Education, University and Research http://www.studiare-in-italia.it/studentistranieri/

EDUCATIONAL QUALIFICATIONS FOR ADMISSION
To enrol, candidates must hold at least one of the following educational qualifications:
Educational qualifications obtained in Italy
- **Diploma** issued by upper secondary education institutes with a 5-year official length of study
- **Diploma** issued by **primary school teaching and artistic institutes** with the student having successfully passed the supplementary annual course
- **University degree**
- **Diploma** issued by **upper secondary education institutes** with a 4-year official length of study for which the supplementary year is not available (currently the Primary school teaching institutes only). In this case, the student must fulfill the specific additional educational debt.

Educational qualification obtained abroad after twelve (12) years of schooling that allows, in the country where it has been obtained, University admission and admission to the selected degree programme. If the upper secondary education qualification has been obtained at the end of a schooling period that is shorter than 12 years, candidates must attach:
1) The certificate attesting the partial academic studies they have carried out. If the candidate submits a request for the shortening of the selected degree programme the exams taken must be specified and official documents on the programme of the exams must be contained;
2) or the post upper secondary education qualification in a non-academic Upper secondary institute.

ATTACHMENT 2

INFORMATION NOTICE IN ACCORDANCE WITH ARTICLE 13 OF THE EU REGULATION NO. 679/2016 OF 27.04.2016 "GENERAL DATA PROTECTION REGULATION"

Data processing controller
The data processing controller is Sapienza University of Rome; the legal representative of the University is the Rector *pro tempore*.
Contact details: urp@uniroma1.it; PEC: protocollosapienza@cert.uniroma1.it

Contact details of the data protection Officer
rpd@uniroma1.it; PEC: rpd@cert.uniroma1.it

Processing purposes and legal basis
Processing of the required personal data is performed to determine the score, corresponding to each adhesive label barcode, achieved by candidates in the knowledge assessment admission tests for degree programmes.
In accordance with Article 6 of the Regulation, processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller.

Nature of personal data conferral and consequence of a possible refusal
Giving the personal data, indicated in the candidate data sheet that is kept by the University at the end of each admission test, is obligatory in order to match the identification code/student/score achieved that allows the ranking preparation. Failure to obtain the data results in the candidate being excluded from the ranking.

Processing methods and processing authorised persons
Data processing is carried out, based on a computerized procedure, by units of the staff appointed by the InfoSapienza ICT Area of Sapienza University of Rome.
The indicated subjects receive from members in charge of the supervision, in separate boxes, the candidates' test papers marked with a univocal identification code and the candidate data sheets so that they may match, based on the personal data, the test papers with the candidates and, consequently, prepare the ranking with the candidates' name list.
All data will be exclusively processed for the amount of time required for the purposes related to admission to the degree programme, including possible disputes, and in no case will the data be processed for the purpose of sending advertising materials or direct selling or else for the performance of market or commercial communication surveys.
There are no other data recipients.

Data subject rights
Data subjects have the right to obtain from the data controller or the data processor, where the conditions for it are met, the access to personal data in accordance with Article 15 of the Regulation, the rectification of said data in accordance with Article 16 of the Regulation, the erasure of the personal data concerning them in accordance with Article 17 of the Regulation or the limitation to personal data processing in accordance with Article 18 of the Regulation, or they may object to personal data processing in accordance with Article 21 of the Regulation, beyond having the right to data portability in accordance with Article 20 of the Regulation.
In the event of infringiments of the provisions in the Regulation, the data subjects may lodge a complaint to the Guarantor for protection of personal data.

Additional information
We hereby inform that, once the competition is over, the data collected for the purposes related to it may be processed for the purposes related to enrolment in the degree programme, in accordance with methods that will be specified in a different specific information notice.

Taking part in the competition with the procedures described in the present call for applications entails being aware of the above-mentioned information notice.