



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO N°9 RESEARCH DOCTORATE COURSES ACTIVATED AT THE UNIVERSITY OF MESSINA – 32^{nd} CYCLE

THE RECTOR

IN VIEW OF	the law of August 13 rd ,1984 n. 476, "Norms regarding scholarships and	
	research doctorate courses in Universities", as integrated by art. 52, par. 57	

of the law December 28th, 2001 n. 448;

IN VIEW OF the art. 19, par.1 of the law of December 30th, 2010 n. 240 that has

modified art. 4 of the law of July 3rd, 1998 n. 210, that comprises norms

regarding research doctorate courses;

IN VIEW OF the law of August 2nd, 1990 n. 241 that establishes: "Rules governing

administrative procedures and the right to have access to administrative

documents", and subsequent amendments and integrations;

IN VIEW OF $\,$ the Legislative Decree June $30^{th},\ 2003\ n.\ 196$, " Code concerning the

protection of personal data" and subsequent amendments and integrations;

IN VIEW OF the Statute of the University Autonomy, issued with the Rector's Decree

(D.R.) n. 1244 of May 14th, 2012 (published in the Italian Government Official Gazette – General Series, n. 116 of May 19th, 2012) and modified by the Rector's decree n. 3429 of December 30th, 2014 (published in the

Italian Government Official Gazette – General Series, n. 8 of January 12nd,

2015);

IN VIEW OF the Ministerial Decree (D.M.) n. 45 of February 8th, 2013 "Regulation

bearing the procedures for the accreditation of centers and of Research doctorate courses and the criteria for the establishment of doctoral courses

by the accredited institutions";

IN VIEW OF the "Guidelines for the accreditation of Doctoral courses", as of the official

Ministerial letter prot. n. 436 of March 24th, 2014 and the letter prot. N.

4289 of March 13nd, 2015 outlining "the operative procedures for the

accreditation of Doctoral course A.y. 2016/17 " prot. N. 6363 of March 11st, 2016;

IN VIEW OF the University of Messina regulation concerning Research Doctorate

courses, issued with the Rector's Decree n. 1015/2016 of May 3rd, 2016;

IN VIEW OF the opinion expressed by the University's evaluation board of April 22nd,

2016 regarding the persistence of the eligibility requirements prescribed by

the national regulations;

IN VIEW OF the deliberations of the April 7th 2016 of the Academic Senate and the

Board of Directors of April 8th 2016 in which are approved the 32nd cycle Research Doctorate courses; assigned the relevant scholarships and

adopted all Agreements with public bodies and other Universities;

IN VIEW OF the General Director Decree (D.D.G.) n. 816 of the March 8th 2016 of the

Sicily Region – Department of Education and Training, regarding the Notice n.5/2016 about the financing of regional doctoral courses scholarships in Sicilia, and the General Director Decree (D.D.G.) n. 3511 of the June 30th of the Sicily Region - Department of Education and

Training - regarding the list of the eligible projects for the financing of the

regional scholarships

IT IS RESERVED the faculty to modify and integrate this Public competition by publicizing

the changes on the University of Messina's website at the following address: http://www.unime.it/dottorati di ricerca/ bandi dottorato

DECREES

Art. 1

Establishment of Research Doctorate (PhD) Courses

The 32nd cycle of Research Doctorate Courses is established with its administrative center at the University of Messina (here on denominated University).

The comparative selections for admission to the Doctoral courses -32^{nd} cycle, academic year 2016-2017, are announced, as indicated in the **attachments n. 1-9**, that are an integral part of this Public competition, where are indicated:

- The denomination of the Doctoral course;
- The type of degree required for admission;
- The characteristics of the Doctoral course and employment opportunities;
- The conditions and selection criteria and the evaluation of candidates;
- The number of positions with and without a scholarship;

• Any other document required and/or different procedure, according to art.10 of the University Regulation concerning Research Doctorates, here on denominated Regulation.

According to the mentioned Ministerial decree (D.M.) n. 45 of the February 8th, 2013 the Research doctorate courses will be activated after the favorable opinion expressed by the ANVUR on compliance to the Ministerial accreditation requirements.

Therefore, the positions and scholarships on competition will be assigned only after this positive evaluation.

The scholarships indicated in the **attachments n. 1 - 9** can be increased before the Course begins, in case financial support from other Universities and/or other private and public bodies will be available, and the relevant Agreements stipulated will have their juridical effects, while bearing in mind the deadlines for applications.

Information regarding these supplementary funds will be publicized on the University website at the address: http://www.unime.it/dottorati_di_ricerca/_bandi_dottorato

The duration of the courses is of three years with a predicted start the October 1st, 2016

Art. 2 Admission Requirements

Candidates can apply, without limits to citizenship, who at the deadline for applications, are in possession of a Specialist/Master degree or the old University degree or any other suitable qualification even obtained abroad, declared equivalent or recognized as suitable for access to the research doctorate courses on the basis of rules confirmed by relevant international agreements.

Those candidates who will obtain the qualification required by the October 31st, 2016 can also participate; in the case these candidates pass selection procedures and enroll in one of the Research doctorate courses, after having obtained the qualification, and not beyond the date above mentioned, must send to the Rector (Magnifico Rettore) of the University of Messina by PEC (Certified electronic mail) protocollo.pec@unime.it or directly at the University's registry office, or by Registered mail with return receipt to the address: Piazza Pugliatti, n. 1 – 98100 Messina, the self-certification with the date and signature (or the relevant certificates only in the case of academic qualifications obtained in NON European countries) accompanied by a copy of a valid identity card, indicating also: name of the University who issued the qualification, date in which it was obtained, type of qualification (specialist/master degree, old system degree), final evaluation.

Those candidates, who for whatever reason do not communicate the attainment of the degree within the expected deadline or send incomplete, erroneous information, by means or different addresses from those indicated will be excluded from Courses.

The suitability of the foreign qualification will be verified by the Examining Committee of the Research Doctorate course according to the current laws in Italy and in the Country where the qualification was issued and in compliance with the Treaties and International Agreements concerning the recognition of qualifications for the continuation of higher education.

Candidates that wish participate at the grant of the regional scholarships must be in possession of further requirements as provided by Sicily Region:

- to be born or reside in Sicily;
- to have an age no more than 35 years at the moment of the presentation of the application form;
- declare his/her availability to do abroad study and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship;
- not to have at the moment of the presentation of the application form any other scholarships on whatever basis conferred during the period of enjoyment of the regional scholarship and to commit not to benefit from other grants conferred on whatever basis except for those specified in art. 9 of the Call.

All candidates are admitted to selections with reserve of verification of the declarations, according to the President of the Republic Decree (D.P.R) n. 445/2000 and subsequent modifications and integrations.

The University can in any moment during procedures and even after the start of courses make check-ups on the truthfulness of the declarations produced. In the case of false declarations the University can arrange in any moment, by provision of the Rector, the exclusion of candidates from selection procedures or from the doctoral course, without prejudice to the penal responsibilities that thus derive.

Art. 3 Application to selection procedures

The application, together with the compulsory documents, as indicated in the **attachments n. 1** – **9** must be filled in electronically by using exclusively the form available at the online address: https://unime.esse3.cineca.it and by following the instructions on that website. At the end of the procedure a MAV form will be generated for the compulsory contribution of \in **50** (**fifty**) for participation to the public competition that must be paid definitely by the day after the expiry date, penalty the exclusion from selection procedures.

For the candidates residing abroad, the contribution for the participation to selections can be paid by money transfer on the bank account IBAN: **IT 16W 02008 16511 000300029177** CODICE BIC SWIFT **UNCRITM1K66** entered to the University of Messina by specifying the reason for payment as hereby indicated: "<surname and name of candidate>, contribution for the participation to the Research doctorate course in <denomination of the course>". The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in the Ministerial Decree n° 594 of August 1st, 2014.

The compulsory contribution for participation to selection procedures is not refundable for any reason at all.

The receipt of payment must be kept by the candidate and must be shown when requested.

Selection procedures will be active for 30 days from the day after the publication of the Announcement on the on-line notice board of the University at the online address

http://www.unime.it/ateneo/_albo. At the expiry date the link will be deactivated and it will not be possible to fill in the application form.

All applications that will arrive after this deadline and/or sent in a different way or are incomplete will be excluded from selection procedures.

Integration of documents will not be admitted after the expiry date of the Public competition. In the application the candidate must indicate the curriculum of the course for which he/she wants to participate.

Candidates must attach only in a **PDF format** the documents requested in **attachments n. 1-9**;

European Union and NON European Union citizens who are in possession of foreign qualification/s obtained in a European Union and/or Non European Union country must attach a copy of the certificate/s of academic qualifications obtained from which are deduced the duration of the Degree course, the list of the examinations taken with the relevant mark, the name of the University who has issued the qualification, the date of the qualification and the final evaluation, with a relevant translation in the Italian or English language, care of and under the responsibility of the declarant, regularly dated and signed.

In the case of the candidate's admission to the course, this documentation must be produced and/or integrated at the moment of enrolment, according to art. 7 of the present Public competition.

The candidates with disabilities must specify in the application, according to the laws in force, the necessary aids and/or the necessity of additional time for the completion of examinations.

Candidates that wish participate at the grant of the regional scholarships must be in possession of further requirements as provided by Sicily Region and they must self certify these further requirements as specified in art. 2.

The insertion of untruthful information in the application form will mean the exclusion from the final list in order of merit and the automatic loss of the right to enrolment, apart from sanctions that are applied by the penal code and the related specific laws. Self certifications, as specified in the paragraphs 46 and 47 of the D.P.R. n. 445/2000 and subsequent amendments and integrations, can also be used by:

- European Union citizens
- NON European Union citizens with residency permit in Italy regarding only the status, personal qualities and facts certified by Italian public bodies (specifically: a qualification obtained at an Italian University).

Art. 4 The Examining Committees

The Examining Committees for admission to the Research Doctorate Courses will be appointed by Decree of the Rector, on proposal of the Teaching board of the Course, according to art. 11 of the University of Messina Regulation. The above mentioned decree will be published after the expiry date for applications on the University's website at the link: http://www.unime.it/dottorati_di_ricerca/_bandi_dottorato will have formal notification value.

The coordinator will then be informed of the publication and subsequently will take care of all consequential obligations and communications to all members concerned.

Art. 5

Examinations

The examinations of each Course indicated in the **attachments n. 1 - 9** of this public competition will be held at the University of Messina which is the administrative center of the Doctoral course.

The examination timetable, with the indication of the place, the day, the month and the hour of the exams will be published after the Public competition's deadline on the website of the University of Messina, at the link: http://www.unime.it/dottorati_di_ricerca/_bandi_dottorato and will have the value of official notification for candidates.

In order to do examinations, candidates must exhibit a valid document of identity.

Candidates, who have a valid and motivated request and is allowed by the specific Course, can do the oral examination via *video-conference by means of specific software*. The Committee in charge of the comparative evaluation of the candidates' qualifications must follow the criteria as provided by each doctoral course and indicated in the attachment 1-9 of this public competition.

The evaluation of qualifications is carried out by the Examining Committee, who defines the criteria for the award of relevant points. It is not required the presence of the candidates at the moment of that evaluation.

The final mark of selection procedures, expressed **in one hundredths**, is the result of the sum of the points given to the examination and to the qualifications submitted for evaluation (qualifications and exam).

The results of the single evaluations of each candidate will be publicized at the Department, administrative center of the Course, on care of the President and the Secretary of the Examining Committee.

At the end of the assessments, the Examining Committee draws up the general ranking list in order of merit on the basis of the evaluation of the academic qualifications and the examination and draws up a list of candidates admitted and not admitted to the Doctoral course.

All Examining Committees must finish procedures within and not beyond the 15th of September 2016.

The final list in order of merit (*Graduatoria di merito*) will be published on the online Official noticeboard and on the University's website at the address: http://www.unime.it/dottorati_di_ricerca/_bandi_dottorato, and it has at all effects a *legal notifying value*.

Art.6 Admission to Courses

The candidates are admitted to the Courses according to what is regulated by the art. 9 of the University Regulation. All candidates are considered "admitted on reserve" according to their

position in the final ranking list until all positions for the Doctoral Course are covered. The scholarships are granted according to the ranking in the final list in order of merit.

Regional scholarships are assigned at candidates that are in possesion of the requirements specifited in the art. 2 on the basis of a comparative evaluation of merit and following the order decided in the relative merit list. University of Messina guarantees that amount of 40% of the positions with regional sholarships is assigned at women candidates who have passed the selection and that are in the merit list. The candidate, on the basis of the final list in order of merit, who is admitted to the Course must express the acceptance of the position within 10 days from the publication of the final evaluations by sending an enrolment application according to what is specified in the following art. 7.

Not applying for enrolment will mean the loss of any right to admission to the Course.

In the case of loss of right or renunciation on behalf of any candidate admitted to Courses, until three months after the start of lessons, the unoccupied positions will be assigned on the basis of the order of candidates in the final ranking list.

In the case of equal points between two or more candidates in the merit list, preference will be given to the candidate with the more disadvantaged economic situation (ISEE income lower) and, in the case of further equal merit, the candidate with the lowest age will prevail.

For positions without scholarship, preference will be given to candidates with the lowest age.

The candidates who have already been admitted, on approval, to examinations according to art. 2 of this Public competition, and are in possession of suitable foreign qualifications, or those who will obtain the required qualification by the October 31st, 2016, in the case of suitable placement in the ranking list, can have access to the Course respectively after:

- favorable approval of the foreign degree;
- the actual attainment of the qualification, needed for selection, by the October 31st, 2016.

The holders of Research funds will be admitted after passing selection procedures as indicated by the art. 20, par. 10 of the abovementioned Regulation.

All public service employees will be admitted to Courses after passing the selection procedures according to art. 20, par. 13 of the abovementioned Regulation.

Art. 7 Enrolment to Courses

Candidates admitted to courses, with or without scholarship, must enroll by the deadline specified at art. 6, par. 2.

The candidate who participated at more than one selection and is placed as successful in more than one final list in order of merit must proceed by declaring his option right for one of the Courses within 10 days from the publication of the final lists of merit of all the Doctoral Courses in which he/she is admitted. Not completing enrolment procedures for the selected Course will mean the loss of any right to admission to all the Courses in which the candidate was admitted.

Candidates must use the enrolment procedure prepared by the University administration, available on the website: https://unime.esse3.cineca.it together with the declarations required by the Public competition and by the Regulation, in self-certification with all attachments

The application must be sent electronically by the expiry date, penalty the exclusion.

<u>The Candidates admitted with a scholarship</u> must pay by MAV for each year, university fees, the regional tax for study rights and the electronic stamp duty of the total amount of \in 198,59, not taking into account any new recalculation of the amount needed for university fees as determined by the competent Academic organs.

The candidates in possession of a foreign academic qualification **obtained in a European Union** country must attach to the enrolment application:

 certificate/s of the qualification/s possessed with attached a translation, in Italian or in English declared identical to the original text by the competent Diplomatic or Consular Authorities abroad.

The candidates in possession of a foreign academic qualification **obtained in a NON European Union** country must attach to the enrolment application:

- certificate/s of the qualification/s possessed with attached a translation, in Italian or in English declared identical to the original text by the competent Diplomatic or Consular Authorities abroad;
- a *Dichiarazione di valore in loco* issued by the competent Diplomatic or Consular Authorities abroad, that certifies the duration of the degree course along with a list of the examinations taken and the relevant marks and also the academic value of the qualification in the Country that has issued it;

The candidates in possession of a qualification obtained abroad, who do not produce evidence of the documents required when matriculating, will be enrolled on reserve, and will be excluded from the doctoral course with the obligation to repay the scholarship rates wrongly received if they do not hand in the documents within six months from the start of the Course and/or, if verified, the qualification produced is not in compliance with the requirements indicated in the present public competition.

The citizens of NON European Union countries must also hand in a copy of their current *Residence permit* in Italy within 10 days after the start of all Doctoral course activities.

At the beginning of each year following the first year of the Course, the Doctoral student, admitted to attend the following academic year, must renew his/her enrolment by the 31st of October of each year, by using the specific procedure available at the website: https://unime.esse3.cineca.it. A fee will be applied of an amount that will be determined by the competent academic organs to all enrolments made after the expiry date.

The false declarations in the enrolment application will mean the exclusion from the final list in order of merit and loss of all rights.

In the above case, the University administration will retrieve any benefits conceded to the candidate and all fees already paid will not be reimbursed. False declarations will bring to a legal action by the interested counterparts for compensation.

Art. 8 Incompatibility

Candidates admitted to Doctoral courses and already enrolled at other courses, not compatible, according to art. 19 of the University Regulation, are obliged to request a temporary interruption of their academic career when they enroll at the Doctoral course.

Candidates who are enrolled at a School of specialization must also suspend their studies apart from the cases described in the following paragraph.

It is possible to combine the attendance of a Doctoral Course with that of a medical Specialization Course, and therefore have a reduction to a minimum of two years for the Doctoral Course according to the following general criteria:

- a) The candidate must be admitted to a Doctoral Course at the same University or a consortium where he attends the medical School of Specialization
- b) A combined attendance of both Courses can be allowed during the last year of the School of Specialization but the Doctoral course must be compatible with the activities and the commitments of the School and after an official authorization by the Teaching Board of the School
- c) The Teaching Board of the Doctoral Course will decide on granting the request for a reduction after having examined the research activity already carried out during the Medical Specialization Course and certified by the Teaching Board of the same Course
- d) During the year of combined attendance of Courses the candidate cannot receive the scholarship of the Doctoral course.

The Teaching Board of the Doctoral course and the Board of the School of Specialization will arrange the manner of the combined attendance of both Courses.

Art.9

Fees and Scholarships

The Research Doctorate scholarships have the duration of one year and are renewed after a specific verification by the Teaching Board of the completion of the previous year's Course programme together with an evaluation of the Research activities developed. Scholarships are paid after a positive evaluation of the activities carried out.

The rules in this article do not apply to holders of foreign scholarships or the recipients of financial support obtained within specific mobility programmes regulated by specific norms.

The whole annual amount of the scholarship, granted in monthly instalments, is equal to €13.638,47 gross of withholding social security contributions that the Doctoral student must pay. The value of the scholarship can be increased up to 50 % of the amount for an overall period not longer than 18 months and more than 15 days if the Doctoral student is authorized by the

Teaching Board to carry out research activity abroad.

The requests for study activity abroad, duly authorized by the Teaching Board together with information regarding the place, the period of stay and the motivation, must be sent by the

Doctoral Course Coordinator to the Research Doctorate Management's Office at least *thirty days* before leaving in order to draw up the relevant Rector's decree.

Starting from the second year, it is expected a fund for the research activities in Italy and abroad according to art. 17 of the Regulation.

In the case of suspension, withdrawal or loss of rights of the Doctoral student who has a scholarship, the student is not entitled to the sum that remains of his scholarship.

The Doctoral student, when admitted to the Course, can decline the scholarship grant by sending an official communication to the Rector of the University. In this case, though maintaining his status, he/she loses all rights to the scholarship and the whole or partial amount can be attributed under the same conditions and terms to the first entitled Doctoral student without a scholarship from the moment in which the scholarship was declined.

The Scholarship is not combinable with any other scholarship apart from those granted by Italian or foreign institutions given to integrate Research activity of the doctoral student conducted abroad, and the exclusion of the specialization activities conducted abroad according to the law n. 398/1989.

The Research Doctorate scholarship is subject to separate INPS social security contributions (*Gestione separata INPS*) that are paid, according to the laws in force, for 2/3 of the amount by the University and 1/3 by the Doctoral student.

Art.10

Attendance, suspension, withdrawal and renunciation

The attendance of doctoral students is compulsory and requires an exclusive full-time commitment.

The suspension, the withdrawal and the renunciation in continuing the Research doctorate course are regulated by the art.18 of the University of Messina regulation concerning Research Doctorate courses.

Art. 11

The treatment of personal data

According to the Legislative Decree n. 196/2003 and subsequent amendments and integrations, the University is obliged to respect the private nature of the information submitted by the candidate. By abiding to the relevant laws in force, all data submitted will be treated for the purpose of selection procedures and for the management of the Doctoral student's career.

Art. 12

Final norms

For anything not stated in this Public competition the norms and regulations contained in art. 4 of the Law n. 210/1998, in art. 19 of the Law n. 240/2010, in the Ministerial Decree (D.M. n.

45/2013) and in the University of Messina's Regulation concerning Research Doctorates (D.R. n. 1015/2016) and other laws in force apply.

The presentation of the application form through the online procedure, as stated in art.3, implies the acceptance on behalf of the candidate of all the regulations in this public competition and those in the already mentioned University of Messina's Regulation concerning Research Doctorates (D.R. n. 1015/2016)

This Decree, written both in Italian and in English, will be published on the on-line notice board of the University at the address http://www.unime.it/ateneo/albo. The Announcement will be published on the EU websites of Euroaxess, on the Ministry of Education, University and Research (MIUR) website and on the University's website.

Disclaimer:

The official and legally binding announcement is the Italian one available at http://www.unime.it/dottorati_di_ricerca/_bandi_dottorato.

This translation cannot be used for legal purposes and is only meant to provide information in English on the public competition for selection procedures.

Changes and integrations in English will be published at http://www.unime.it/dottorati_di_ricerca/_bandi_dottorato.

The Rector
Prof. Pietro Navarra

The person in charge of administrative procedures

Dott.ssa A.Garozzo

B



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 1

<u>Research doctorate in</u> **Applied Biology and Experimental Medicine**

<u>Curricula</u> In the application the candidate must indicate the denomination of

Doctoral course:

1. Experimental Medicine;

2. Biologic and Environmental Sciences;

3. Pharmacological Sciences.

<u>Coordinator</u> Prof. Salvatore Cuzzocrea

email: salvator@unime.it

Positions with scholarship

1 UNIME	
1 ONIME	
5 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

<u>Position without scholarship</u> 2

Required degrees LM-6 Biology

LM-9 Medical, veterinary and pharmaceutical biotechnologies

LM-13 Pharmacy and industrial pharmacy)

LM-60 Natural Sciences

6/S (Speciality in Biology)

9/S (Speciality in Medical, veterinary and pharmaceutical biotechnologies)

14/S (Speciality in Pharmacy and industrial pharmacy)

68/S (Speciality in Natural sciences)

Speciality in pharmaceutical chemistry and technology

Requirements for foreign students

The suitability of the foreign qualification will be ascertained by the Examining Committee of the Research Doctorate course according to the current laws in Italy and in the Country where the qualification was issued and in compliance with the treaties and international agreements concerning the recognition of qualifications for the continuation of higher education.

Description and objectives of the course

The PhD program in Applied Biology Research and Experimental Medicine (DBAMS) offers to young graduates a postgraduate training that is essential to undertake research and/or coordinating both academic and extra- both public and private University institutions. Among the priority objectives of the PhD program are considered essential issues related to the ethical motivations of the research, the awareness of the environmental risks inherent in the genome alteration or introduction of new species, the full accountability in terms of sustainable development. The PhD program will form the modern figures have both an in-depth knowledge base that a strong propensity application in vast areas of modern biology; also confer to the doctoral students the ability and skills required to carry out research in an autonomous and competent manner in pre - clinical, clinical and post - marketing industry. The ability to use interdisciplinary knowledge's in the fields of biology and applied biotechnology represents an indispensable integration of groups that work towards a coordination of different strategies. This PhD program implements several forms of collaboration with Italian and foreign research organizations in order to propose periods of study and research to learn new techniques and methods for scientific research.

Employment and career opportunities provided

PhD program in Applied Biology and Experimental Medicine will provide professionals used in the territory, both in the public and private sectors, based on the address chosen. The curriculum of "Biological and Environmental Sciences" will be able to address the multiple problems related to the defence and protection of environmental resources through employability in private companies that deal with issues related to basic research in biotechnology, aimed at monitoring and improving animal breeding, as consultants of agro - food and pharmaceutical industries and in environmental monitoring. The PhD doctor in "Pharmacological Sciences" must be able to design, characterize and develop new drugs, study its biological, chemical and chemical-

physical, assets structure relationships, the development of methodologies designed to identify of new sources of natural active ingredients and the optimization of pharmaceutical formulations.

Description of the training activities

Linguistics	Some lectures and seminars will be held in English.
Informatics	Students have access to the computer workstations connected to the University network.
Research management, knowledge of research systems and funding systems	Students will be involved both in the design and in the full grant proposal experimental design in order to make them independent in the conduct of a project and in the search for future funding
Exploitation of research results and intellectual property	All research activities will be published in international journals with impact factor and presented by the PhD students at national and international conferences

Documents to be attached

Necessary documentation to be included in pdf format, in the application under penalty of exclusion:

- scanned copy of an ID (or passport) with photo, valid according to expiration data reported on it;
- curriculum vitae;
- research project developed by the candidate (which is not binding on the subsequent doctoral thesis);

for candidates already in possession of the qualification:

- a self-certification, signed and dated, indicating for the qualification: the name of Italian university who has issued the qualification, degree, designation of the degree course, the date of the qualification, the final evaluation, list the courses attended with individual results and indication of credits earned when provided;
 - Self certifications can also be used by:
 - European Union citizens;
 - NON European Union citizens with residency permit in Italy regarding only the status, personal qualities and facts certified by Italian public bodies (specifically: a qualification obtained at an Italian University).

European Union and NON European Union citizens who are in possession of foreign qualification/s obtained in a European Union and/or Non European Union country must attach a copy of the certificate/s of academic qualifications (Bachelor's and Master's degree) obtained from which are deduced the duration of the Degree course, the list of the examinations taken with the relevant mark, the name of the University who has issued the qualification, the date of the qualification and the final evaluation, with the relevant translation in the Italian or English language, care of and under the responsibility of the declarant, regularly dated and signed.

• Master or specialist or old system degree thesis

for candidates not yet in possession of qualification (undergraduates):

• Self-certification, signed and dated, indicating for the qualification: the name of University, degree, designation of the degree course, list the courses attended with individual results and indication of credits earned when provided;

Additional titles:

- publications;
- professional experiences;
- others title

Evaluation criteria

1. Titles

The maximum score to the qualifications will be 20/100 points.

Qualifications are:

- degree thesis
- university career
- publications
- professional experiences
- curriculum vitae

2. **Project**

The maximum score to the project will be 20/100 points. The research project on specific themes of the PhD program should be carried out by the candidate and is not binding on the subsequent award of the PhD thesis.

3. Examination: oral examination

The maximum score to the oral examination will be 60/100 points, with a minimum rating of 42/100.

It consists of an interview in order to ascertain the qualifications, skills, aptitude for scientific research and the motivations of the candidates. The interview also aims to verify the knowledge's of the candidates on topics that relate to training and procedures for the PhD and includes the formal presentation of the proposed research project. During the oral exam will be

a test of knowledge of the English language. The oral exam, on reasoned request, will be supported electronically by means of suitable and specific software.

Minimum overall assessment to be considered eligible: 60/100 points

Only for candidates resident abroad you must pay the contribution for the competition, by transfer to the account EN 16W 02008 16511 000300029177 SWIFT BIC CODE UNCRITM1K66 name of the University of Messina, specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in "Applied Biology and Experimental Medicine."

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 2

Research doctorate in Medical and Surgical Biotechnologies

<u>Coordinator</u> Prof.. Giovanni Raimondo email: raimondo@unime.it

Positions with scholarship

1 UNIME	
1 AOU Policlinico	
	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods
4 Scholarship Notice FSE Sicilia 2014-2020	for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship;
	- Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

<u>Required degrees</u> LM-6 Biology;

LM-9 Medical, Veterinary and Pharmaceutical Biotechnology;

LM-41 Medicine and Surgery; LM- 42 Veterinary Medicine;

LM-46 Dentistry and Dental Implants.

Requirements for foreign students

The appropriateness of degrees and other certifications will be validated by an examination commission for the doctoral course with respect to the related norms in Italy and the countries where such certification was issued, in accordance with International agreements or conventions.

Description and objectives of the course

The aim of the doctoral programme is to train professionals with the specific skills needed to carry out a primary role in the field of Medical and Surgical Biotechnology. The course is composed of the following core areas: 1) study and development of biotechnology for infection prevent and control, with particular focus in the biotechnology concerning perinatal, pediatric, gastroenteric and surgical areas; 2) study of molecular mechanisms underlying cellular differentiation and proliferation with the aim of identifying targets for tumor control as well as tissue and organ generation.

Medical and Surgical Biotechnological sciences have been an important element contributing to the economic and social growth not only of developed countries but also in developing ones. The aims of the present doctoral degree consist in the training of experts having the theoretical and practical bases to be active in a competitive and international field such as that of Medical and Surgical Biotechnology. The course will focus on the most advanced methods to study morbidity and mortality due to perinatal, pediatric and surgical infections and to prevent chronic inflammation underlying the metabolic syndrome associated with tumors.

Employments and career opportunities provided

Modern history in countries such as China, India and South Korea has shown that the main factor leading to economic development is economic and industrial innovation, particularly that in the fields of informatics and biotechnology. Competitiveness in these fields has allowed developing countries to compensate for lack of advances in other areas. Similarly, the economic and social development of Italy and other European countries cannot proceed with leading professional figures in the field of health biotechnology. Given the intrinsic value of human health, it is expected that such professional figures can play a central role in several areas: pharmaceutical industry, biotech start-ups, hospitals and similar institutions and public as well as private research centres. The increased demand for human resources in these areas will be followed by the need to reduce healthcare spending through preventative healthcare measures, particularly those such as vaccines and in the prevention of metabolic syndrome and cancer. Furthermore, there is expected to be a significant expansion in the field of regenerative medicine that will require significant skills in the field of cellular differentiation and stem cell biology. For the

above reasons, there is no doubt that students emerging from the present doctoral course are expected to have a pivotal role and ample job opportunities in the medium- and long-term.

Description of the training activities

Language	During the course, English will gradually become the main language used. Seminars, journal clubs and thesis discussion will take place in English. Foreign students are expected to enroll in this doctoral programme; this should encourage the use of the English language further.
Informatics	The availability of individual personal computers with internet connection will promote better acquaintance with informatics tools. In addition, bioinformatics will be an essential part of the training provided.
Research, research systems and financial management	Research management and the related financial systems will be taught to the students on site, since the training will be based on individual projects. These projects must have a clear definition and objective in line with available resources. These resources will be available from lecturers/researchers who are grant-winners and who ensure the financial feasibility of research activity.
Maximal use of research results and intellectual property	This will take place through a) the presentation of research results in International conferences and their publication in International peer-reviewed publications; b) application for patents related to projects carried out; c) Exchange with external experts in the relevant areas, with emphasis on those that work in the pharmaceutical and biotech industry.

Documents to be attached

Compulsory Documents to be included as pdf files. The absence of any of the following documents will be reason for exclusion:

- scanned copy of an ID (or passport) with photo, valid according to expiration data reported on it;
- curriculum vitae;
- research project written by the candidate, one A4 page maximum length. This project will not be the one that the candidate has eventually to work on for his PhD thesis;

for candidates already in possess of entry qualifications:

• self-certification, including date and signature, stating the title grade. The self-certification should also state the University (or other) that released the degree, the degree denomination, degree date, final comprehensive grade, and grade for any of the exams, when available;

Self-certifications can used also by:

- European Union citizens;
- Citizens of non-European Union Countries, regularly resident in Italy, for titles obtained according to Italian law (specifically for eligible titles obtained from an Italian University).

The candidates, EU citizens and non–EU citizens, with a title obtained not in Italy and obtained in non-EU Countries must include the title (Bachelor's and Master's degree) from which the duration of the course can be understood, plus the final comprehensive grade, and grade for any of the exams, the University from which the title has been released, the data, and the translation in Italian or in english (if the title is not in italian or english), upon the responsability of the declarant, with date and signature of declarant. These candidates will be admitted to the selection under judgment and will eventually be excluded from the selection and PhD course when the title will result to be uneligible for the call;

• Master thesis (or analogous thesis);

for the candidates who do not have the eligible title yet, but it is supposed they will have it soon:

• self-certification, dated and signed, indicating the title they are going to receive; University in which they are enrolled, type of degree, denomination, list of exams with obtained grade, when appropriate /available;

Other titles to be eventually included

- scientific publications;
- former professional experience;
- any other title the candidate could have.

Evaluation criteria

1.Titles

Maximum: 30/100.

Suitable titles are:

- Master degree or other similar degree;
- academic carrier (exams grade, final grade);
- eventual publications;
- eventual professional experience and others;

- candidate research project;
- curriculum vitae.

2. Oral Exam

The maximum score achievable by the oral exam will be 70/100 points, with a pass mark of 42/100 points.

The oral exam will ascertain the knowledge, ability, scientific research attitude and motivation of the candidates, and it will be finalized to establish the canditate's knowledge about subjects which relate to the educational and methodological objectives of the Course, and will include the formal presentation of the proposed research project.

Knowledge of English language will be established during the oral exam. The oral exam, following a justified request, will be taken online using suitable and specific software.

Minimal total score to be considered as admissible: 60/100 points.

Candidates resident abroad are required to pay a participation fee, using an bank transfer on the account number IT 16W 02008 16511 000300029177 CODICE BIC SWIFT UNCRITM1K66, name of the University of Messina , specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in "Medical and Surgical Biotechnologies".

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 3

<u>Research doctorate in</u> Physics

Coordinator Prof. Lorenzo Torrisi

email: lorenzo.torrisi@unime.it

Positions with scholarship

2 UNIME	
	- Candidates must have been born in
	Sicily or must be residents in Sicily;
	- Have an age not exceeding 35 years at the time of application;
	- Candidates formally declare its
2 G 1 1 1 N .:	availability to conduct abroad studies and research periods for at
2 Scholarship Notice FSE Sicilia 2014-2020	least 6 months and to be aware that
FSE SICIII 2014-2020	the missing abroad period will
	cause the revocation of the whole scholarship;
	- Candidates formally declare not
	eligible for other grants for any
	reason and to undertake not to
	make use of other scholarships
	awarded for any purpose, except to
	those eligible under current
	legislation as specified at the art. 9
	of the present PhD call.

Positions without scholarship 1

<u>Required degrees</u> LM-17 Physics

LM-29 Electronic Engineering

LM-44 Mathematical and physical modeling for engineering

LM-53 Sciences and material engineering

LM-54 Chemical Sciences

LM-79 Geophysical Sciences

20/S (Specializations in Physics)

32/S (Specializations in Electronic Engineering)

61/S (Specializations in Sciences and Material Engineering)

62/S (Specializations in Chemical Sciences)

85/S (Specializations in Geophysical Sciences).

Requirements for foreign students

Degrees equivalent to that masterful, Specialist or Old system in the following macro-sectors:

AREA 02 – Physics Sciences AREA 03 – Chemistry Sciences AREA 04 - Earth Sciences

The suitability of the foreign degree will be determined by the Commission of the PhD examination in accordance with current legislation in Italy and in the country where it was issued the same and treaties or international agreements on the recognition of further education qualifications.

Description and objectives of the course

The educational objectives are mainly related to the need to provide graduate students with the tools needed to carry out, according to high quality standards, their doctoral thesis, in close relation to research topics carried out in the Department of Mathematics and Computer Science, Physical Sciences and Earth Sciences (MIFT), as well as to complete the training of physicists designed to fit high-level production processes and / or training in the country. The PhD activities are aimed at training professionals capable of developing independently, or in groups of basic and applied research activities in Physics with the following purposes:

- Knowledge advanced in the field of the structure of matter, soft matter physics and complex systems, particularly with regard to theoretical, computational and experimental.
- Knowledge advanced in the field of nuclear physics, with regard to theoretical and experimental aspects, studies of nuclear and sub-nuclear particles, plasma physics, accelerators and detection systems.
- Physics applied to the environment, cultural heritage, medical physics and geophysics, spectroscopic techniques, in situ analysis, modeling, and regulatory risks.
- Synthesis, diagnostics and modeling of the behavior of nanomaterials, quantum optics and non-linear phenomena in micro- and nano-structures, applications in energy, biotechnology, optoelectronics, photonics and sensor systems.

Employments and career opportunities provided

Scientific careers in universities, in the Higher Institutes of Education, the National Laboratories and Research Institutions (CNR, INFN, ENEA, ENI, INGV, etc.) and International with particular projection in Europe. Employment at managerial level in the Industry Paintings of electronic components, R & D sectors of advanced processes, software, telecommunications, economy, finances. Teaching in Secondary Schools. scientific career in large research facilities, material physics and physics of the nucleus and the particles. Use in health facilities requiring

advanced knowledge of physics, radioactivity, medical diagnostic, imaging, environmental monitoring, particle beams in medicine. Superintendents and use in structures operating in the field of cultural heritage conservation and protection of environmental assets, characterization of artifacts of artistic, historical and archaeological. Use in structures operating in the field of control of atmospheric processes, meteorology and oceanography, including the numerical simulation of complex processes of evolution, assessment of natural and anthropogenic risks. Inclusion in the roles of fellow in the university and public research bodies, advisory activities on environmental safety issues. Use in the petrochemical industries, synthesis of polymers, colloids, pharmaceutical sector and glass industry.

Description of the training activitie

Linguistics	It provides an advanced course in English language that will be played as part of our university by native speakers Lectures for a total period of 20 hours a year. On the occasion of the PhD study day in Physics, tradition at our university, on the Annual Report (ISSN 2038-5889) students must prepare a scientific paper in English language on their research activities. Besides the elaborate final thesis it must be written in English.
Informatics	It provides for the holding of an advanced computer course that will be held at our University by colleagues of Computer for a total of 20 hours a year. Among other things He teaches to the student to write scientific papers in Latex, the use GRID architecture and the basic elements of parallel computing. In addition, graduate students will be able to make use of structures for scientific computing and applications of COMET consortium.
Research management, knowledge of research systems and funding systems	It will be made by experts a series of specialized seminars relating to the management of research at national and international level, the coordination of research teams and methods of research of national and international funding channels.
Exploitation of research results and intellectual property	There will be a series of specialized seminars relating to the exploitation of research results and intellectual property. They will be carried out by teachers involved in experiences of national and international research and scientific publications with high impact factor, as well as teaching staff and officials of the university facilities for attracting resources and the exploitation of intellectual property (CARECI).

Documents to be attached

Documentation, imposes the pdf application under penalty of exclusion:

- scanned copy of an identification card with photo, valid;
- research project developed by the candidate (which is not binding on the subsequent award of the doctoral thesis);

for candidates already in possession of admission:

• self-certification, provided with date and signature, indicating the title of access: Italian or foreign University which awarded the title, type of degree, the name of the degree course, date of attainment of the title, final vote, list of exams with their marks and indication of credits earned if any;

Self-certification may also use:

- EU citizens;
- citizens of non-EU countries, legally residing in Italy, only for the states, personal qualities and events certified and attested by Italian public entities (specifically: degree from an Italian University).

Candidates, EU and non EU citizens, in possession of / the foreign degree /s achieved /s in non-EU countries must attach the certificate of title / the owned / (Bachelor's study and Master's degrees) that would suggest the duration of the course of study, the list of exams taken with relative grades, the university's indication that issued the license, the date of graduation and the final vote, with the translation in Italian or English written and edited under the responsibility of the registrant, duly dated and signed. These candidates will be admitted to the selection procedure with reserve and will be excluded from the selection and from the PhD program if, after verification, it appears that the title does not comply with the requirements of this announcement and does not allow, therefore, enrollment in the doctorate.

• Master's thesis or master or old system;

for candidates not yet in possession of admission (undergraduates):

• self-certification, provided with date and signature, indicating the title of access: university where they are enrolled, the type of degree, name of the degree program, list of exams taken with relative marks and indication of acquired credits;

Additional titles to accompany the application if in possession of the candidate:

- publications;
- professional experiences;
- other securities held by the applicant;
- curriculum vitae.

Evaluation criteria

1. Titles

The maximum score to the titles will be 30/100 points assessable qualifications are:

- Master's thesis, specialized or old system, consistent with the themes proposed by the PhD in Physics, consistent with the themes proposed by the PhD in Physics;
- university career (useful examinations, graduation mark); publications;
- any professional experience and other qualifications held by the applicant;
- research project developed by the candidate, which is not binding on the subsequent award of the PhD thesis;
- curriculum vitae.

2. Test exam: written test and oral exam

The written test consists of an elaborate proposed by the commission aimed to ascertain the qualifications, skills and attitudes to scientific research, as part of its themes of the PhD in Physics, of the candidates. The dissertation will be held in Italian or in English. The maximum score for the written test will be to 40 points, with a minimum rating because it intends to overcome 24 points.

The oral test consists of an interview aimed at ascertaining the knowledge, skills, attitude to scientific research and the motivation of candidates. The interview also aims to verify the knowledge of the candidates on topics that relate to training and procedures for the PhD and includes the formal presentation of the research project. During the oral exam will be a test of knowledge of the English language. The maximum score in the oral test will be 30 points, with a minimum rating because it intends to overcome 18 points.

The minimum overall assessment to be considered eligible: 60 points.

Only for candidates resident abroad you must pay the contribution for the competition, by transfer to the account EN 16W 02008 16511 000300029177 SWIFT BIC CODE UNCRITM1K66 name of the University of Messina, specifying the reason for payment as indicated below "<full name of applicant> participation in doctoral contribution PHYSICS".

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 4

Research doctorate in Engineering and Chemistry of Materials and of Constructions

<u>Coordinator</u> Prof. Signorino Galvagno

Email: galvagno@unime.it

Positions with scholarship

2 UNIME	
2 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

<u>Positions without scholarship</u> 1

Required degrees All Master, Specialist and old system degrees

Requirements for foreign students

Knowledge of Italian or English language.

The suitability of the foreign qualification will be ascertained by the Examining Committee of the Research Doctorate course according to the current laws in Italy and in the Country where the qualification was issued and in compliance with the treaties and international agreements concerning the recognition of qualifications for the continuation of higher education.

Description and objectives of the course

This PhD course represents the evolution of the previous PhD course in "Engineering and Materials Chemistry" of the University of Messina. The main objective is to train qualified professionals having technical and methodological skills for sustainable innovation and competitive demands required by the manufacturing system. The objective is pursued through an education covering the strategic fields of engineering and chemistry together with a multi-disciplinary research on innovation and development of new products and processes.

The research areas are concentrated in key enabling technologies combining theoretical, scientific and design aspects, in particular:

- a) advanced materials and technologies for industrial, environmental and energetic fields. Development of advanced materials with best performance and innovative applications. Design and development of technologies for energy and environmental control.
- b) Advanced experimental methods useful to production systems and processes. Supporting technologies (such as characterization and non-destructive testing) for the development of materials, components and advanced and smart embedded systems.
- c) Numerical modeling of functional devices and structures. Predictive modeling applied to engineering and materials sciences.

Employment and career opportunities provided

PhD students will become experts of high level with wide technical, scientific and methodological skills able to bring innovation in the manufacturing and construction field. The professional will be able to lead research groups working in the public or private sector as well as to hold highly professional positions in many productive sectors with high technological level such as manufacturing, processing, mechanical, electronics, energy production and conversion, construction industries. PhD students reaching research results with a high degree of innovation will also be strongly encouraged towards entrepreneurial activity through academic spin-offs.PhD graduate will possess professional characteristics of Production Manager, R&D Manager, Maintenance Manager, Specialist in new materials development, Specialist in structures control.

Description of the training activities

Linguistics	It is planned to organize language training activities together with other doctorates course of the University of Messina. All PhD students are still encouraged to take the exams so that to obtain certificates recognized internationally.
Informatics	It is planned to organize computer training activities (courses and/or seminars) about operating systems, programming languages together with other doctorates course of the University of Messina.
knowledge of research	It is planned to organize training activities in the field of research management and knowledge of European and international research systems, also with the participation of external lecturers together with other doctorates course of the University of Messina.
Exploitation of research results and intellectual property	It is planned to organize training about the exploitation of research results and intellectual property, also with the participation of external lecturers together with other doctorates course of the University of Messina.

Documents to be attached

Necessary documentation to be included in pdf format, in the application under penalty of exclusion:

- a signed photocopy of a valid document of identity;
- curriculum vitae;
- research project developed by the candidate (that is not binding for the subsequent assignment of the doctoral thesis);

for candidates already in possession of the qualification:

- Self-certification, with the date and signature, the indication for the required qualification: the Italian University that issued it, the type of degree, the denomination of the degree course, the final evaluation, the list of examinations with the relevant marks and the credits (CFU) acquired where needed;
 - Self-certification may also use:
 - European Union citizens;

- NON European Union citizens with residency permit in Italy regarding only the status, personal qualities and facts certified by Italian public bodies (specifically: a qualification obtained at an Italian University).

European Union and NON European Union citizens who are in possession of foreign qualification/s obtained in a European Union and/or Non European Union country must attach a copy of the certificate/s of academic qualifications (Bachelor's and Master's degree) obtained from which are deduced the duration of the Degree course, the list of the examinations taken with the relevant mark, the name of the University who has issued the qualification, the date of the qualification and the final evaluation, with the relevant translation in the Italian or English language, care of and under the responsibility of the declarant, regularly dated and signed;

• Master or specialist or old system degree thesis.

for candidates not yet in possession of qualification (undergraduates):

• Self-certification, signed and dated, indicating for the qualification: the name of University, degree, designation of the degree course, list the courses attended with individual results and indication of credits earned when provided;

Additional titles:

- Publications
- Work experience
- Other qualification in possession of the candidate

Evaluation criteria

1. Titles

For the evaluation of qualifications the maximum is 30/100 points Titoli valutabili sono:

Suitable titles are:

- Master degree or other similar degree;
- academic carrier (exams grade, final grade);
- eventual publications;
- eventual professional experience and others;
- candidate research project;
- curriculum vitae.

2. Oral Exam

The oral exam consists in an interview designed to assess the knowledge, skills, aptitude for scientific research, and the motivations of the candidates.

The interview is designed to test the candidates' knowledge on topics relating to the educational and methodological trends of the Doctoral course and includes the formal presentation of the

proposed research project. During the oral examination the knowledge of the English language will be tested Foreign students are required to have a good knowledge of Italian or the English language Maximum overall grade for the oral examination is 70/100 points, with the minimum evaluation for a pass in the examination of 42/100 points. Candidates, who have a valid and motivated request, can do the oral examination via video-conference by means of specific software.

Minimum overall assessment to be considered eligible: 60/100 points

Only for candidates resident abroad you must pay the contribution for the competition , by transfer to the account EN 16W 02008 16511 000300029177 SWIFT BIC CODE UNCRITM1K66 name of the University of Messina , specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in "Engineering and Chemistry of Materials and of Constructions". The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree $n^\circ 594$ of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 5

Research doctorate in Biomedical, Clinical and Experimental Medicine

<u>Coordinator</u> Prof. Edoardo Spina

email: espina@unime.it

<u>Positions with scholarship</u>

1 UNIME	
1 AOU Policlinico	
4 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

Positions without scholarship 2

<u>Required degrees</u> LM-6 Biology;

LM- 9 Medical, Veterinary and Pharmaceutical Biotechnology;

LM- 13 Pharmacy and industrial pharmacy;

LM-41 Medicine and Surgery; LM-42Veterinary Medicine;

LM-46 Dentistry and Dental Implants;

LM-51 Psychology

Requirements for foreign students

The appropriateness of degrees and other certifications will be validated by an examination commission for the doctoral course with respect to the related norms in Italy and the countries where such certification was issued, in accordance with International agreements or conventions.

Description and objectives of the course

The research PhD programme in Biomedical, Clinical and Experimental Medicine will offer training in advanced scientific research and in methods used in the biomedical field. The main obejctive of this course involves the integration of scientific knowledge of biology with the scientific aspect of clinical medicine. The discoveries made in the biomedical field in the last years highlight the importance of a multidisciplinary approach that allows the direct translation for molecular and experimental medicine to the clinical setting. In this context, it is necessary to guarantee the chance of a learning translational and interdisciplinary approaches to young doctors and new graduates in the field of biomedicine, with particular focus on aetiology of disease with the aim of improving diagnosis and therapy.

Employment and career opportunities provided

The training provided over the 3 years of the course will allow the PhD student to acquire the professional competence and the ability to conduct research autonomously, whether this be biomedical or experimental but in both cases applied to the clinical setting; this research activity will be carried out in a university setting or within other research centres, whether public or private. Graduates from this PhD course can find jobs in the following areas: University settings, for experimental/basic research as well as applied research; hospital settings, in a context of health care research and specialised diagnostic techniques; research institutes and other centres of healthcare research making use of advances methods and tools to conduct research; public research entities; pharmaceutical industries that invest in the innovation of technology; private laboratories engaging in applied research; neuropsychological rehabilitation centres and other social health centre. The appropriateness of degrees and other certifications will be validated by an examination commission for the doctoral course with respect to the related norms in Italy and the countries where such certification was issued, in accordance with International agreements or conventions.

Description of training activities

Language	During the course, English will gradually become the main language used. Seminars, journal clubs and thesis discussion will take place in English. Foreign students are expected to enroll in this doctoral programme; this should encourage the use of the English language further.
Informatics	The availabiltiy of indiviudal personal computers with internet connection will promote better acquaintance with informatics tools. In addition, bioinformatics will be an essential part of the training provided.
Research, research systems and financial management	Research management and the related financial systems will be taught to the students on site, since the training will be based on individual projects. These projects must have a clear definition and objective in line with available resources. These resources will be available from lecturers/researchers who are grant-winners and who ensure the financial feasibility of research activity.
Maximal use of research results and intellectual property	This will take place through a) the presentation of research results in International conferences and their publication in International peer-reviewed publications; b) application for patents related to projects carried out; c) Exchange with external experts in the relevant areas, with emphasis on those that work in the pharmaceutical and biotech industry.

Documents to be attached

Necessary documentation to be included in pdf format, in the application under penalty of exclusion:

- a signed photocopy of a valid document of identity;
- curriculum vitae;
- research project developed by the candidate (that is not binding for the subsequent assignment of the doctoral thesis);

for candidates already in possession of the qualification:

• Self-certification, with the date and signature, the indication for the required qualification: the Italian University that issued it, the type of degree, the denomination of the degree course, the final evaluation, the list of examinations with the relevant marks and the credits (CFU) acquired where needed;

Self-certification may also use:

- European Union citizens;
- NON European Union citizens with residency permit in Italy regarding only the status, personal qualities and facts certified by Italian public bodies (specifically: a qualification obtained at an Italian University).

European Union and NON European Union citizens who are in possession of foreign qualification/s obtained in a European Union and/or Non European Union country must attach a copy of the certificate/s of academic qualifications (Bachelor's and Master's degree) obtained from which are deduced the duration of the Degree course, the list of the examinations taken with the relevant mark, the name of the University who has issued the qualification, the date of the qualification and the final evaluation, with the relevant translation in the Italian or English language, care of and under the responsibility of the declarant, regularly dated and signed;

• Master or specialist or old system degree thesis.

for candidates not yet in possession of qualification (undergraduates):

• Self-certification, signed and dated, indicating for the qualification: the name of University, degree, designation of the degree course, list the courses attended with individual results and indication of credits earned when provided;

Additional titles:

- Publications
- Work experience
- Other qualification in possession of the candidate

Evaluation criteria

1. Titles

For the evaluation of qualifications the maximum is 30/100 points.

Titoli valutabili sono:

Suitable titles are:

- Master degree or other similar degree;
- academic carrier (exams grade, final grade);
- eventual publications;
- eventual professional experience and others;
- candidate research project;
- curriculum vitae.

2. Oral Exam

The oral exam consists in an interview designed to assess the knowledge, skills, aptitude for scientific research, and the motivations of the candidates. The interview is designed to test

the candidates' knowledge on topics relating to the educational and methodological trends of the Doctoral course and includes the formal presentation of the proposed research project. During the oral examination the knowledge of the English language will be tested.

Maximum overall grade for the oral examination is 70/100 points, with the minimum evaluation for a pass in the examination of 42/100 points. Candidates, who have a valid and motivated request, can do the oral examination via video-conference by means of specific software.

Minimum overall assessment to be considered eligible: 60/100 points

Only for candidates resident abroad you must pay the contribution for the competition , by transfer to the account EN 16W 02008 16511 000300029177 SWIFT BIC CODE UNCRITM1K66 name of the University of Messina , specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in "Biomedical, Clinical and Experimental Medicine".

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 6

Research doctorate in CI

Chemical Sciences

Curricula

Two curricula are available. The candidate has to indicate the curriculum he/she is applying for :

- 1. Design, synthesis, analysis and properties of functional molecular systems;
- 2. Pharmaceutical, nutraceutical and food chemistry and chemical technologies.

Coordinator

Prof. Sebastiano Campagna email: campagna@unime.it

Positions with scholarship

1 UNIME	
4 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

Positions without scholarship 1

Required degrees Any Master degree or equivalent title.

Requirements for foreign students

To know Italian or English

The eligibility of the title (Master degree or other) will be checked by the Commission within the rules of the Italian law and of the law of the Country in which the title has been released. It will also be considered the international agreements as far as the academic titles are concerned.

Description and objectives of the course

The aim of the PhD course in Chemical Sciences is to prepare PhD laureates capable to work at the top level in industries, academic institutes, and public or private agencies and companies. The three year course foresees a high standard level both from theoretical and experimental viewpoints. The main field of research (topics) are innovative materials and chemical systems, nanotechnologies, food chemistry, nutraceutical science, energy conversion, information technology, pharmaceutical chemistry, analytical determination of natural and artificial products, structural chemistry, solution thermodynamics, environmental chemistry.

The research activity encompassed the following italian SSD, according to MIUR: CHIM/01, CHIM/02, CHIM/03, CHIM/06, CHIM/08, CHIM/09, CHIM/10.

Employments and career opportunities provided

The course is aimed to prepare doctorate with high level of autonomy and organizative research ability, within several chemical research and work fields. The PhD laureate will have a large range of work activities: basic and applied research, industrial activities, teaching at high level, etc.

Description of the training activities

Linguistics	Research time spend abroad (typically, four months on average for each PhD student out of the overall 36 months)
Informatics	The acquisition of informatics skills is inherent to the course, as it is needed for the research activity.
Research management, knowledge of research systems and funding systems	The students will be given suitable protocols for research design and activity, as well as on the writing and management of research projects.
Exploitation of research results and intellectual property	Students will have to report on their scientific results at conferences and seminars. The results will be also published in international renowned scientific journals.

Documents to be attached

Compulsory Documents to be included as pdf files. The absence of any of the following documents will be reason for exclusion:

- scanned copy of an ID (or passport) with photo, valid according to expiration data reported on it;
- curriculum vitae;
- research project written by the candidate, one A4 page maximum length. This project will not be the one that the candidate has eventually to work on for his PhD thesis;

for the candidates already having the eligibility title:

• self-certification, including date and signature, stating the title grade. The self-certification should also state the University (or other) that released the degree, the degree denomination, degree date, final comprehensive grade, and grade for any of the exams, when available;

Self-certifications can used also by:

- European Union citizens;
- citizens of non-European Union Countries, regularly resident in Italy, for titles obtained according to Italian law (specifically for eligible titles obtained from an Italian University).

The candidates, EU citizens and non–EU citizens, with a title obtained not in Italy and obtained in non-EU Countries must include the title (Bachelor's and Master's degree) from which the duration of the course can be understood, plus the final comprehensive grade, and grade for any of the exams, the University from which the title has been released, the data, and the translation in Italian or in english (if the title is not in italian or english), upon the responsability of the declarant, with date and signature of declarant. These candidates will be admitted to the selection under judgment and will eventually be excluded from the selection and PhD course when the title will result to be uneligible for the call.

• Master thesis (or analogous thesis);

for the candidates who do not have the eligible title yet, but it is supposed they will have it soon:

• self-certification, dated and signed, indicating the title they are going to receive; University in which they are enrolled, type of degree, denomination, list of exams with obtained grade, when appropriate /available;

Other titles to be eventually included

- scientific publications;
- former professional experience;
- any other title the candidate could have;

Evaluation criteria

1.Titles

Maximum: 30/100.

Suitable titles are:

- Master degree or other similar degree;
- academic carrier (exams grade, final grade));
- eventual publications;
- eventual professional experience and others;
- candidate research project;
- curriculum vitae.

2. Exams: written and oral tests

Written:

Maximum: 40/100. It is also required a minimum evaluation of 24/100, for considering the exam passed. If an evaluation lower than 24/100 is obtained, the candidate is not eligible for the PhD course.

<u>The written test</u> consists in a composition whose topic is proposed by the Commision, aimed to evaluate the preparation, the ability and attitude to scientific research. The composition can be made in italian or in english.

<u>Oral</u>

Maximum: 30/100. It is also required a minimum evaluation of 18/100, for considering the exam passed. If an evaluation lower than 18/100 is obtained, the candidate is not eligible for the PhD course.

<u>The oral test</u> – in italian or in english, upon candidate request – is a colloquium aimed to evaluate the preparation, the ability and attitude to scientific research of the candidate, with particular regard to the PhD topics.

During the oral test the level of understanding of the english language (if the oral test is not made in english) will be tested.

For foreign students the knowledge of italian or english is requested.

The oral exam, upon motivated request, can be made telematically, using suitable specific softwares.

There is a mimimum evaluation required for titles+exams, that is 60/100. If a candidate does not obtain at least 60/100 as the sum of his/her title+exams, he/she is not eligible for the PhD course.

Only for the candidates having legal residence abroad, it is compulsory to pay the participation fee by bank transfer to the account IT 16W 02008 16511 000300029177;

BIC SWIFT Code: UNCRITM1K66, name of the University of Messina, specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in Chemical Sciences.

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT 7

Research doctorate in Cognitive Sciences

<u>Curricula</u> In the application form the candidate must indicate the curriculum

the course for which he/she intends to participate

1. Philosophy of Language and of the Mind, Bioethics and Science of Evolution;

2. Theories and Technologies of Social media and the Performing Arts.

<u>Coordinator:</u> Prof. Antonino Pennisi

email antonio.pennisi@unime.it

Positions with scholarship

5 UNIME	
1 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

Positions without scholarship 2

Required degree All Master's, Specialist and Old Order degrees.

Requirements for foreign students

Knowledge of the Italian or English language.

The suitability of the foreign educational qualification will be verified by the Examining Committee of the PhD course according to the current laws in Italy and in the Country where the educational qualification was issued and in compliance with the Treaties and International Agreements concerning the recognition of qualifications for the continuation of higher education.

Description and objectives of the PhD course

The PhD Course has been activated since the XVIII cycle and proposes a wide variety education and training starting from the "cognitive turn". Cognitive sciences represent in fact a field of studies that is not referred to specific sectors but to research contexts corresponding to complex and intrinsically multidisciplinary problems. The common object of study is the nature and the functioning of the mind in whatever either natural or artificial system, but it is here investigated by means of multiple approaches.

Philosophy, psychology, neurosciences, linguistics and computer science make up the foundations of the classic cognitivism. More recently, it has been extended to social and evolutionary sciences, producing new disciplines such as bioethics, neuroesthetics, cognitive ethology, neuropedagogy: all objectives of the PhD education here proposed. More than a set of contents, neurosciences can be recognized in an interdisciplinary method founded on the integration among the rigour of the natural and technological sciences and the interpretative spectrum of the human sciences, adopted as fundamental educational objective of the PhD course. The subdivision of the two curricula (naturalistic-philosophic and social-technological) that are coherent for the contextualistic and methodological horizon, sketches an educational picture completely coherent with the ERC SH4 sector "The Human Mind and its complexity: cognition, psychology, linguistics, philosophy and education".

Expected career and professional opportunities

PhDs in cognitive sciences find employment both in the fields of theoretical and applied research in each of the contexts in which the cognitive sciences are constituted, including neurosciences, linguistics, artificial intelligence, philosophy and psychology, both in the context of rehabilitation and healthcare as well as in the field of the "cognitive artifacts" technology, including all devices that aim to enhance the human cognitive capabilities. The aforementioned research areas are among the most convenient ones considering the opportunities of today's panorama. Although the neurosciences, bioengineering and robotics and other experiences of a certain social recognition are more practised abroad, they also represent in Italy real job opportunities.

The cognitive rehabilitation field has already been developed and probably it will do more in the future, more and more that the social awareness toward the disability and methods for its treatment will increase. In the end, the use of technologies of "cognitive artifacts" is appearing as one of high technology sectors more capable to guarantee job opportunities: the establishment of web ontologies, the simulation of the markets' behaviour, the designing of ergonomic artifacts are some examples. To launch PhD students to take an employment way towards the described

directions, the PhD course has undertaken collaboration protocols, internships and stages with some companies.

Description of the training activity

Linguistics	 English laboratories with 3 native speakers with different levels of advancement; Specific scientific English training and its use in SBA's bibliographic databases; Abroad period for research and linguistics improvement.
Computer Science	 Overview on the utilization of computer sciences as vehicle of knowledge, starting from relational databases, through logic knowledge-base, and concluding with web oriented systems of ontology and semantic organization; Introduction to the Python language and its data structures, classes and main methods, hints on modules that are more relevant in the cognitive field; Course of statistic for the experimental research.
Management of the research, of the knowledge of research systems and of the funding systems	- Stages on contents and the procedures to get Grants from the European Research Council, specifically related to the multidisciplinary research ERC SH4 "The Human Mind and its complexity: cognition, psychology, linguistics, philosophy and education".
Valorization of research results and intellectual ownership	 The PhD course has specific forms for the valorization of research results: International journal published by "Il Mulino" (Bologna): Networks, Knowledges, Languages: Italian Journal of Cognitive Sciences; Specialized publisher CoRiSco (Italian coordination of the research in cognitive sciences); Annual congress of CoDiSco (Italian coordination of PhD Courses in cognitive sciences) Coordination with the main international networks on cognitive sciences (association of publishers).

Documents to be attached

Documents that must be mandatory attached to the application form in pdf format, penalty the exclusion:

- scanned copy of a valid identity document with photo;
- curriculum vitae:
- research project written by the candidate, maximum 2 A4 pages (that does not represent a constraint for the following assignment of the PhD thesis).

For candidates already having the eligibility educational qualification:

- self-certification, including date and signature, stating the educational qualification: the Italian University that has released the degree, degree denomination, degree date, final grade, list of exams with corresponding grades and CFU when available: Self-certifications can be also used by:
 - European Union citizens;
 - citizens of non-European Union Countries, regularly resident in Italy, limited to status, personal qualities and episodes that can be certified by public Italian subjects (more specifically an educational qualification obtained from an Italian University).

Candidates, EU citizens and non–EU citizens, with a foreign educational qualification obtained in non-EU Countries must attach the certification of degree (Bachelor's and Master's degree) that reports the duration of the course, the list of exams with corresponding grades, the University that has released the educational qualification, the date of achievement and the final grade with the translation in the Italian or English language, written by the declarant, upon his/her responsibility, regularly dated and signed. Such candidates will be conditionally admitted to the selection and they will be excluded from the selection of the PhD course, after verification, in the case the educational qualification results ineligible for the call and it does not allows, therefore, the enrollment to the PhD course.

• Master's or specialist degree thesis (or analogous thesis);

for the candidates who have not achieved the eligible educational course yet (undergraduates):

• self-certification, dated and signed, indicating for the educational qualification; University in which they are enrolled, type of degree, denomination of the degree course, list of exams with obtained grade and corresponding obtained CFU;

Further qualifications that have to be attached to the application form if owned by the candidate:

- Publications:
- Work experiences;
- Other qualifications owned by the candidate.

Evaluation criteria of qualifications and exams

1.Titles

The maximum score attributable to qualifications will be 30/100 points.

Assessable qualifications are:

- Master's, Specialist, Old Order degree thesis;
- academic carrier (exams' grades, final grade);
- possible publications;
- possible professional experiences and other qualifications owned by the candidate;
- research project elaborated by the candidate, that does not represent a constraint for the following assignment of the PhD thesis.
- curriculum vitae.

2. Exams: oral examination

It consists in an interview intended to verify preparation, ability, aptitude for scientific research, a complete mastery of bibliographic tools specific to cognitive sciences and the professional motivation of candidates. The interview is aimed at verifying the knowledges of candidates in the one or more areas of cognitive sciences (language sciences, philosophical sciences, neuropedagogy; neurosciences and sciences of the mind; information sciences; I.A. and media technologies; cognitive oriented social sciences) with particular regard to the theoretical and/or experimental methodologies of the two curricula of the PhD course: (1) Philosophy of Language and of the Mind, Bioethics and Science of Evolution; (2) Theories and Technologies of Social media and the Performing Arts. It will also be evaluated the candidate's general methodological ability, and, in particular, his/her aptitude towards experimental methodologies connected with the proposed research project.

During the oral examination, the knowledge of the **English** language will be verified. **For foreign students the knowledge of the Italian or English language is required.** The maximum score that can be assigned to the oral examination is 70/100 points and it will considered passed with a minimum assessment of 42/100 points.

Minimal final assessment in order to be considered admissible: 60/100 points.

Only for candidates having legal residence abroad, it is compulsory to pay the participation fee by bank transfer to the account number: IT 16W 02008 16511 000300029177; BIC SWIFT Code: UNCRITM1K66, named to Università degli Studi di Messina, specifying the reason as following: "<family name and given name of the candidate> Contributo partecipazione dottorato in SCIENZE COGNITIVE".

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

ATTACHMENT N° 8

Research doctorate in Historical, Archaeological and Philological Sciences

Curricula In the application form the candidate must indicate the curriculum

of the course for which he/she intends to participate

1. Ancient and Modern Philology;

2. History and geography from the Middle Ages to the

Contemporary Era;

3. Archaeology and Ancient History.

<u>Coordinator</u> Prof. Vincenzo Fera

email: fera@unime.it

Positions with scholarship

4 UNIME	
3 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

Research without scholarship 2

Required degrees

LM-2 Archaeology;

LM-5 Library studies;

LM-11Sciences for the conservation of cultural heritage;

LM-14 Modern Philology;

LM-15 Philology, literature and history;

LM-39 Linguistics;

LM-52 International Relations;

LM-62 Political Sciences:

LM-64 Religious Sciences;

LM-80 Geographical Sciences;

LM-84 Historical Sciences;

LM-14 Modern Philology - (teaching qualification A043);

LM-37 Languages, Modern and American Literatures (teaching qualification A045);

2 / S (specialist degree course in Archeology);

5 / S (specialized degree course in Archive Studies and Library Science);

15 / S (specialized degree course in philology and literature of antiquity);

16 / S (specialist degree course in Modern Philology);

24 / S (specialist degree course in Computer Science in the Humanities);

40 / S (specialized degree course in Italian language and culture);

44 / S (specialist degree course in Linguistics);

70 / S (specialist degree course in Political Sciences);

72 / S (specialist degree course in Religious studies);

93 / S (specialist degree course in ancient history);

94 / S (specialist degree course in contemporary history);

97 / S (specialist degree course in medieval history);

98 / S (specialist degree course in modern history);

99 / S (specialist degree course in European Studies)

Requirements for foreign students

- Knowledge of Italian language.
- Knowledge of English or French or German or Spanish language.

The suitability of the foreign qualification will be ascertained by the Examining Committee of the Research Doctorate course according to the current laws in Italy and in the Country where the qualification was issued and in compliance with the treaties and international agreements concerning the recognition of qualifications for the continuation of higher education.

Description and objectives of the course

The PhD course aims at training scholars for highly qualified specialist research, according to the state-of-the-art methodologies. The educational programme is wide and synergetic, thus offering

substantial job prospects as well. The ANCIENT AND MODERN PHILOLOGY course, which is focused on Old Greek, Latin and Italian languages and literatures, provides strong expertise in linguistics, prosody and metres, palaeography, textual criticism and more side-disciplines which are naturally needed by a correct research in the fields of philology, history of Italian (or Greek or Latin) language, literary criticism, within a well-built relationship between Ancient and Modern; the HISTORY AND GEOGRAPHY course deals with the period from Middle Ages to present-day, covering Europe history and geography, history of religions and political thought, thus ensuring a competitive training for both research and teaching (major subjects: the territory with its physiognomy and its transformation due to social-cultural dynamics, European historical roots between West and East and in relation to the Mediterranean sea; the impact of political-religious factors on modernity); the ARCHAEOLOGY AND ANCIENT HISTORY course aims at training qualified and up-to-date archaeologists and historians who can effectively work as managers or researchers in the whole region of the Mediterranean sea: thanks to the expertise in Greek and Roman archaeology, methodologies of archaeological research, numismatics, Greek and Roman history and epigraphy, they will be able to handle knowledge, preservation and promotion of the local cultural heritage.

Employment and career opportunities provided

The PhD degree will provide excellent chances for jobs especially in State agencies and private institutions working in the field of scientific research, namely humanities; very good chances for jobs in schools, as well as in institutions devoted to the promotion of the local cultural heritage or to the enhancement of the regional identity or to the preservation and management of cultural assets (books, museums, archaeological remains); also very good chances in institutions dealing with history of industry and with international cultural cooperation; in publishing industry and in public relations.

Jobs: researcher; teacher in schools; curator of books in libraries, museums and institutions; curator of manuscripts in libraries; management in archives; curator in theatres and in galleries of art; specialist and manager in 'Soprintendenza' (Monuments and Fine Arts Office), museums, parks, libraries, archives, local institutions (in Italy and abroad), jobs for the education superintendency; project manager for political cooperation (domestic and international: Ministries, cultural institutions, diplomatic and consular representations, agencies dealing with cultural exchanges, communications, international relationships); jobs for institutions devoted to the promotion of regional identity; jobs in publishing; counsellor for social relationships within EU, as well as Mediterranean countries.

Description of the training activities

Linguistics	The linguistic training (which can also make use of the
	specialists in French studies belonging to the Teaching Body)
	will be strengthened through the numerous connections with
	foreign scholars, who will also give lectures in their own

	languages. The PhD course will develop all of the cooperation channels inherited from the former PhD courses now merging with it. During the writing of the doctoral dissertation a month's stay abroad will be scheduled (libraries or suitable institutions will be eligible): this period can be easily used to attend language courses.
Informatics	In the Teaching Body there is a Professor of Informatics, who will train individually the PhD students: he will introduce them to the most relevant software packages, to electronic resources for historical and philological research, to digital databases, to internet utilities.
Handling research and sources of finance	Lectures and workshops will be given by specialists from various disciplines (extramural specialists as well) according to the features and the objectives of each curriculum. Long experienced Professors will help in organizing and developing the research of every PhD student, who will be given an outline of the main methodologies in palaeography, archive studies, history and informatics.
Optimization and promotion of thescientific results and of the intellectual property	There is a close cooperation with prestigious institutions - such as CISU (Centro Internazionale di Studi Umanistici) and "Istituto di studi storici Salvemini" - and a strong connection with the journal "Mediterraneo Antico", as well as a whole publishing platform inside the Department of Studies (DICAM): e. g. "Pelorias", "Semata e Signa", "Nisaba", "Quaderni di Archeologia". This will enable the PhD students from the 3 curricula to publicize their individual scientific results through the most suitable channels (conferences, publications, etc.).

Notes

The great extent of the research areas covered by the 3 curricula implies a wide-ranging set of themes: as a consequence, they will be kept separate, with specialized teachings, but at the same time they will be held together through the recurrent organization of shared lectures, conferences and workshop. In order to write their doctoral dissertation, the PhD students will be encouraged to spend some time away (libraries, archives, etc.; internships at museums and suitable institutions are eligible; for the Archaeological curriculum a period of excavations can also be scheduled). Each course will organize one monthly meeting, where every PhD student will report

the progress of his work. At the end of every year a plenary meeting is scheduled, where every PhD student will share the progress of his work.

Documents to be attached

Documentation, imposes the pdf application under penalty of exclusion

- A scanned copy of a valid document of identity with a photo;
- Curriculum vitae
- Research project drawn up by the candidate, of not more than 4000 words (that is not binding for the subsequent assignment of the doctoral thesis)

for candidates already in possession of the qualification:

• Self-certification, with the date and signature, the indication for the required qualification: the Italian University that issued it, the type of degree, the denomination of the degree course, the final evaluation, the list of examinations with the relevant marks and the credits (CFU) acquired where needed;

Self-certification may also use:

- European Union citizens;
- NON European Union citizens with residency permit in Italy regarding only the status, personal qualities and facts certified by Italian public bodies (specifically: a qualification obtained at an Italian University).

European Union and NON European Union citizens who are in possession of foreign qualification/s obtained in a European Union and/or Non European Union country must attach a copy of the certificate/s of academic qualifications (Bachelor's and Master's degree) obtained from which are deduced the duration of the Degree course, the list of the examinations taken with the relevant mark, the name of the University who has issued the qualification, the date of the qualification and the final evaluation, with the relevant translation in the Italian or English language, care of and under the responsibility of the declarant, regularly dated and signed;

Master or specialist or old system degree thesis.

for candidates not yet in possession of qualification (undergraduates):

 Self-certification, signed and dated, indicating for the qualification: the name of University, degree, designation of the degree course, list the courses attended with individual results and indication of credits earned when provided;

Additional titles:

- Publications
- Work experience
- Other qualification in possession of the candidate

Evaluation criteria

1. Titles

For the evaluation of qualifications the maximum is 20/100 points:

- Master, specialist or old system degree thesis: max 5 points
- university career (for graduates: it will be considered only graduation mark; for undergraduates: it will be considered only examinations): max 6 points
- research project prepared by the candidate of not more than 4000 words (which is not binding for the award of the Doctoral thesis in the case in which the candidate is admitted to the course): max 5 points
- publications: max 2 points
- any professional experience and other qualifications held by the applicant: max 2 points

The professional experiences considered are those research activities that are congruent to the curriculum chosen by the candidate.

2. Exams: Written and oral examination

For foreign students is required Knowledge of Italian language.

<u>Written exam</u>. It consists of an examination paper directed to ascertain the knowledge, skills and aptitude for scientific research of the candidates; different examination papers will be given in relation to the various curricula.

The maximum amount of points assigned to the written examination is **40** with a minimum pass grade of 24 points.

<u>Oral Exam</u>. It consists of an interview to ascertain the knowledge, skills, aptitude for scientific research and the motivations of the candidates. The interview is designed to test the candidates' knowledge on topics relating to the educational and methodological trends of the Doctoral course and includes the formal presentation of the proposed research project (max 30 points). During the oral examination the knowledge of a foreign language indicated by the applicant in the application (to be chosen among: English, French, German, Spanish) will be tested (max 10 points)

Minimum overall assessment to be considered eligible: 60/100 points

Only for candidates resident abroad you must pay the contribution for the competition , by transfer to the account EN 16W 02008 16511 000300029177 SWIFT BIC CODE UNCRITM1K66 name of the University of Messina , specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in

Historical, Archaeological and Philological Sciences".

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.



UNIVERSITA' DEGLI STUDI DI MESSINA

PUBLIC COMPETITION, BY QUALIFICATIONS AND EXAMINATIONS, FOR ADMISSION TO THE RESEARCH DOCTORATE COURSES - 32^{nd} CYCLE

Attachment n. 9

Research doctorate in Veterinary Sciences

<u>Curricula</u> In the application form the Candidates have to indicate the

Curriculum of the PhD Course in which they intend to participate:

1. Morpho-Physiology and Applied Biotechnologies;

2. Public Veterinary Health and Food Safety;

3. Clinical Veterinary Sciences.

<u>Coordinator</u> Prof.ssa Adriana Ferlazzo

email: adriana.ferlazzo@unime.it

Positions with scholarship

2 UNIME	
4 Scholarship Notice FSE Sicilia 2014-2020	 Candidates must have been born in Sicily or must be residents in Sicily; Have an age not exceeding 35 years at the time of application; Candidates formally declare its availability to conduct abroad studies and research periods for at least 6 months and to be aware that the missing abroad period will cause the revocation of the whole scholarship; Candidates formally declare not eligible for other grants for any reason and to undertake not to make use of other scholarships awarded for any purpose, except to those eligible under current legislation as specified at the art. 9 of the present PhD call.

<u>Required degree</u> LM-6 Biology

LM-9 Medical, Veterinary and Pharmaceutical Biotechnology

LM-42 Veterinary Medicine

LM-69 Agricultural Science and Technology

LM-70 Food science and technology

LM-86 Animal husbandry science and technology

6/S Specialist in Biology)

7/S (Specialist in Agricultural Biotechnology

9/S (Specialist in Medical, Veterinary and Pharmaceutical Biotechnology)

47/S (Specialist in Veterinary Medicine)

77/S (Specialist in Agricultural Science and Technology)

78/S (Specialist in Agri-food science and technologies)

79/S (Specialist in Agro-zootechnical Sciences and technologies)

Requirements for foreign students

Degrees related to the formative PhD program, of same value and acknowledged by the applicable international agreements. The validity of the foreign qualification will be established by the PhD Exam Commission following the relevant italian law, the law of the country awarding the qualification and the relevant international agreements about acknowledgment of foreign qualifications.

Description and objectives of the course

The course is finalized to train researchers with an integrated cultural background of professional skills and basic knowledge of Veterinary Sciences.

They will need to have the ability to formalize problems in various applicative contexts, to acquire experimental techniques (traditional and innovative) in basic, special and applied Veterinary Sciences.

The Course includes a basic education, followed by a progressive development of autonomous propositional capabilities, which will end with the proposal of a thesis work in one of the subjects of the formative program.

The course will be organized in 3 Curricula:

- Morpho-Physiology and Applied Biotechnologies: it will produce highly trained specialists in the autonomous research in basic and applied veterinary biotechnologies, in experimental techniques with animal models and in the application of biochemical and functional principles for the optimal productive, reproductive, sport and therapeutic utilization of animal species.
- **Public Veterinary Health and Food Safety**: it will produce highly trained specialists in the fields of infectious and parasite diseases, in spontaneous or not-spontaneous pathologies, in the animal production linked to the support of zootechnical companies, of pharmaco-tossicology and food inspection of animal origin's products.
- Clinical and Veterinary Sciences: it will produce highly trained specialists in the fields of medical, surgical and obstetrical methodologies, and in the national and EU legislative knowledge applicable to the professional veterinary activity.

Employment and career opportunities provided

PhDs will achieve a professional qualification for the free-lance activity, National Health Services, public and private industry, local government, international organizations and cooperation and research agencies, facilities related to sport, rehabilitation, productive and reproductive increment.

The types of studies, organized on the basis of the EU directives (the primary role in the services offered to the community and to the veterinary profession, relationships with foreign universities, projects related to animal welfare and to public veterinary health and cooperation with foreign countries etc.) offer employment in the EU.

The acquired capabilities will insure employment and specialistic management consultancies in:

- accredited livestock farms, racecourses, stables and rehabilitation structures, faunistic structures, fish farms and aquaculture facilities; animal pounds.
- control of animal health and welfare in breeding farms, recovery structures and research establishments:
- evaluation of health (medical, surgical, obstetrical) interventions;
- application of laboratory biomedical techniques and of specific biotechnical techniques which are functional in the veterinary area;
- management and control of animal productions' quality and safety;
- planning, supervision, assistance and quality assurance of animal origin's products and derivates.

Description of the training activities

Linguistics	The course will take place in Italian and English languages. English language knowledge (B1 level) and specific scientific English language is required. Through the CLAM, learning of a second language (French, German or Spanish) will be encouraged, to facilitate a period abroad. The PhD students will need to improve their communication skills through english seminars, contact with foreign researchers and attending international conferences.
Computer Science	PhD students will be encouraged to the full use of the available digital supports, to the knowledge of main applicative programs (Windows, Word, Excel, Power Point) and to their optimal use for evaluation and presentation of research results. In order to expand the multidisciplinary aspects, collaborations in the fields of bioinformatics and statistics will be solicited; in the second year of the course, a specific Biostatistics module will take place.

Management of research systems' knowledge and of funding systems	The PhD student's research activity will be supervised by a senior tutor and, possibly, by a co-tutor. The training will be implemented in a Career Development Plan (scientific and complementary knowledge acquisition; development of networking capability in order to acquire EU and national funds; acquisition of professional maturity and scientific independence). During the third year of the Course, a specific module on 'Scientific project-making, networking development and fund raising' will take place.
Promotion of research results and of	PhD students will be encouraged to write personally the scientific papers emanating from their experimental activity,

ouraged to write personally the from their experimental activity, and to use journals in ISI and Scopus with I.F. indexes; together with their tutors, they will follow the publication process. PhD students will be invited to take advantage of available placements in foreign research laboratories. The PhD achievement will help the students to acquire scientific authority and to compete successfully for international post-doc and research positions.

Documents to be attached:

intellectual property

Documentation, imposes the pdf application under penalty of exclusion:

- scanned copy of a valid identity document with photograph;
- curriculum vitae:
- research project, coherent with the PhD course interests, developed by the candidate (which does not constitute a commitment with respect to the following thesis assignation)

for candidates already in possess of entry qualifications:

- self-certification, dated and signed, listing the followings: Italian University which awarded the degree, date and final grade, list of exams performed with awarded marks and list of the acquired CFU where required;
 - Self-certification may also use:
 - European Union citizens;
 - NON European Union citizens with residency permit in Italy regarding only the personal qualities and facts certified by Italian public bodies (specifically: a qualification obtained at an Italian University).

European Union and NON European Union citizens who are in possession of foreign qualification/s obtained in a European Union and/or Non European Union country must attach a copy of the certificate/s of academic qualifications (Bachelor's and Master's degree) obtained from which are deduced the duration of the Degree course, the list of the examinations taken with the relevant mark, the name of the University who has issued the qualification, the date of the qualification and the final evaluation, with the relevant translation in the Italian or English language, care of and under the responsibility of the declarant, regularly dated and signed;

• Master or specialist or old system degree thesis.

for candidates not yet in possession of qualification (undergraduates):

• Self-certification, signed and dated, indicating for the qualification: the name of University, degree, designation of the degree course, list the courses attended with individual results and indication of credits earned when provided;

Further documents which the candidate may attach to the application, if relevant to the PhD course:

- publications;
- professional experiences;
- other qualifications obtained by the candidate;

Evaluation criteria

1. Titles

The maximum score achievable due to qualifications will be 30/100 points.

Scoring qualifications are:

- master, specialistic or 'old order' thesis;
- university career (exams performed with marks, final degree mark);
- publications;
- professional experience and other qualifications;
- research project relevant to the PhD course' scientific interests, developed by the candidate, which does not create an obligation in view of the following assignation of the PhD thesis;
- Curriculum vitae.

2. Oral Exam

The oral exam will ascertain the knowledge, ability, scientific research attitude and motivation of the candidates, and it will be finalized to establish the canditate's knowledge about subjects which relate to the educational and methodological objectives of the Course, and will include the formal presentation of the proposed research project.

Knowledge of English or French language will be established during the oral exam.

The maximum score achievable by the oral exam will be 70/100 points, with a pass mark of 42/100 points. The oral exam, following a justified request, will be taken online using suitable and specific software.

Minimal total score to be considered as admissible: 60/100 points.

Candidates resident abroad are required to pay a participation fee, using an bank transfer on the account number IT 16W 02008 16511 000300029177 CODICE BIC SWIFT UNCRITM1K66, name of the University of Messina, specifying the reason for payment as indicated below " < full name of applicant> participation doctoral contribution in *Veterinary Sciences*".

The candidates from the developing countries are exempted from the payment of the contribution mentioned above as defined in ministerial decree n°594 of August 1st, 2014.

The receipt of the transfer must be carefully preserved and exhibited by the candidate in case of request.