

MATERIALS SCIENCE AND TECHNOLOGY		
Cycle	XXXII	
Duration	3 years	
Coordinator	Prof. Enrico DALCANALE – Department of Chemistry E-mail: enrico.dalcanale@unipr.it	
Research Topics (the applicant MUST indicate one research topic)	1) Photovoltaic devices 2) Functional materials 3) Strongly correlated systems 4) Nanodiagnostics 5) Nanostructured materials 6) Supramolecular sensors and devices 7) Semiconductive massive crystals 8) Low dimensionality semiconductive structures 9) Self-healing and self-diagnostic polymers 10) Surface supported molecular materials 11) Magnetic materials and magneto-refrigeration 12) Ceramic and composite materials 13) Materials and devices for memristic devices and for bioelectronics	
Partner Institution	<ul style="list-style-type: none"> • The Italian National Research Council (C.N.R.) • Cape Town University (South Africa) 	
Partner Institution for University Cooperation Agreements	<ul style="list-style-type: none"> • Kazan University (Russia) • Stockholm University (Sweden) 	
Training objectives	<p>The PhD program in Materials Science aims at the preparation of PhDs equipped with strong scientific background and wide research experience in materials science. Enrollment is open to MS laureates in Materials Science, Chemistry, Physics, Industrial Chemistry, Engineering and Biological Sciences.</p> <p>The Board of teaching offers and organizes courses and seminars in different scientific areas, with particular focus on all aspects of materials science (synthesis, characterization, functions and devices). The PhD program offers an interdisciplinary preparation through research activity, also in collaboration with foreign Institutions.</p>	
Academic degree required	Laurea pursuant to the previous university system, laurea specialistica or laurea magistrale, or a foreign academic qualification that has been recognized as equivalent	
POSITIONS PUT OUT TO COMPETITION		
With Scholarship	8	
Without Scholarship	2	
TOTAL		10
KIND OF SCHOLARSHIP		
N°	<i>Funding entity</i>	<i>Research Topic, if any</i>
1	Scholarship Ministerial funds	--

1	Scholarship University funds	--
3	Funded by The Italian National Research Council (C.N.R.)	--
1	Funded by EMILIA ROMAGNA REGION in the Project "Materials, devices and processes for the factory 4.0"	• Photonic and plasmonic nanostructures for innovative sensors
1	Funded by C1P8 s.r.l.	• New carbon nanostructured materials for applications in ion batteries
1	Co-funded by Fondazione Cariparma	--

ADMISSION PROCEDURES

Assessment of QUALIFICATIONS: up to 60 points
(a minimum score of 10 points shall be required to be admitted to the Oral Exam)

ORAL EXAM: up to 60 points

Minimum score for ELIGIBILITY: 70/120

Foreign Language

Language the fluency of which shall be assessed during the Oral Exam: **ENGLISH**.

The evaluation of the knowledge of this language will be oral and will consist in translating of a scientific text.

Possibility of videoconference for candidates residing abroad

(the relevant request shall be submitted using the form attached to the competitive examination announcement)

YES

THE INTERVIEW MAY BE HELD ALSO IN ENGLISH

LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT

Graduation thesis	Abstract of the graduation thesis (mandatory qualification)	Up to 10 points
Graduation mark	Score related to the final mark: - 110 with honours (magna cum laude): 10 points; - 110: 8 points; - From 105 to 109: 6 points; - From 100 to 104: 4 points; - From 95 to 99: 2 points - Under 95: 0 points	Up to 10 points
Average of the exam marks (if the candidate will attain the degree no later than 31 October 2016)	Score related to the average of the exam marks: - 30/30: 10 points; - From 28/30 to 29/30: 8 points; - From 26/30 to 27/30: 6 points; - 25/30: 4 points - 24/30: 2 points - Under 24/30: 0 points	Up to 10 points
Curriculum Vitae et studiorum and other qualifications	Including academic career and postgraduate experience, accompanied with a statutory declaration in lieu of the certification of the exams passed with the relevant marks, as well as the final graduation mark (mandatory qualification)	Up to 20 points

Statement of Research Interest	Short text – maximum 2 pages – in Italian or in English, aimed at explaining the candidate's reasons to attend the PhD and at describing the specific research interests	Up to 5 points
Scientific publications	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	Up to 5 points
Reference Letters	Maximum 2 letters and must be sent directly by the signer to the address e-mail: giulia.bonamartini@unipr.it (The candidate, therefore, must not uploading them through the procedure of the competition online registration)	Up to 5 points
Other qualifications	Awarding of Scholarships, prizes, trainings, etc.	Up to 5 points
SCHEDULE OF THE ADMISSION EXAMS		
ORAL EXAM	ORAL EXAM DATE: 19 September 2016 TIME: 09:30am PLACE: C.N.R. - IMEM Parco Area delle Scienze, 37/A – 43124 PARMA, ITALY	
Oral Exam topics	Oral exam will focus on the reasons for the candidate to attend the PhD program on outlining specific research interests, and a discussion of the qualifications presented by the candidate.	
OTHER INFORMATIONS	For foreign candidates, the admission examinations may be held in English at the candidate's choice.	