UNIVERSITÀ DI PARMA

MATERIAL SCIENCE AND TECHOLOGY	
Cycle	**XXXIII**
Duration	3 years
Coordinator	Prof. Enrico DALCANALE – Department of Chemistry, Life Sciences and Environmental Sustainability E-mail: enrico.dalcanale@unipr.it
Research Topics (the applicant MUST indicate one research topic)	1) Photovoltaic devices 2) Fuctional 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	• **The Italian National Research Council (C.N.R.)** • **Cape Town University (South Africa)**
Partner Institution for University Cooperation Agreements	• Kazan University (Russia) • Stockholm University (Sweden)
Training objectives	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. The Board provides a wide range of courses and seminars in different scientific areas, with particular focus on all aspects of materials science (synthesis, characterization, functions and devices). It also offers soft skills courses. The PhD program offers an interdisciplinary preparation through research activity, also in collaboration with foreign Institutions.
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

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POSITIONS PUT OUT TO COMPETITION	
With Scholarship	8
Without Scholarship	2
Reserved to holders of scholarship within specific internatinal mobility programs	1
TOTAL	**11**

KIND OF SCHOLARSHIP		
N°	***Funding entity***	*Research Topic, if any*
2	Scholarship Ministerial funds	--
1	Scholarship University funds	--
3	Funded by The Italian National Research Council (C.N.R.)	--
1	Funded by Department of Chemistry, Life Sciences and Environmental Sustainability, by Department of Mathematical, Physical and Computer Sciences and by Institut ISTEC-CNR of Faenza (RA)	--
1	Co-funded by Fondazione Cariparma	• Functional magnetic materials for applications in green and energy-efficient technologies for energy conversion

Positions reserved to scholarship holders within specific international mobility programs	
N°	***Agreements/Cooperations/Mobility Programs***
1	Protocol of International University Cooperation for Educational and Scientific Purposes with Indian Institute of Science Education and Research Thiruvananthapuram – India (IISER TVM)

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	
ADMISSION PROCEDURES for positions reserved to scholarship holders within specific international mobility programs	**Assessment of QUALIFICATIONS: up to 120** 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 traslating of a scientific text.
Possibility of videoconference for candidates residing or termporarily abroad (the relevant request shall be submitted using the form attached to the competitive examination announcement) THE INTERVIEW MAY BE HELD ALSO IN ENGLISH	**YES**

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LIST OF QUALIFICATIONS TO BE SUBMITTED AND THEIR ASSESSMENT		
Graduation thesis	Abstract of the graduation thesis (**mandatory qualification**)	**Up to 10 points** For **position reserved** Up to 30 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 2017)	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 25 points** For **position reserved** Up to 50 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 10 points** For **position reserved** Up to 30 points
Scientific pubblications	Articles and/or reviews in scientific journals with peer reviewing, abstracts of papers or posters presented at conventions or meetings	**Up to 5 points** For **position reserved** Up to 10 points

SCHEDULE OF THE ADMISSION EXAMS	
ORAL EXAM	**ORAL EXAM DATE:** 19 September 2017 **TIME:** 09:30am **PLACE:** Department of Chemistry, Life Sciences and Environmental Sustainability - Chemical Building Parco Area delle Scienze, 27/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.

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