PhD Course: MATERIALS SCIENCE AND TECHNOLOGY			
Department	SCIENZE CHIMICHE - DiSC		
Duration	3 years		
Number of positions	Scholarships funded by external public or private bodies/Departments	n. 3	**1** scholarship funded by Dipartimento di Scienze Chimiche - DiSC su fondi Bando FIS 2 PE11 Materials Engineering STARTING GRANT Progetto FIS-2023-02956 “Engineering of Catalytic Active Sites on Nanocarbons for Enhancement of Photocatalysis” (ENGCAT); CUP C53C25000170001 **-** **Topic:** Development of photocatalytic systems for ethylene production; **1** scholarship funded by Dipartimento di Scienze Chimiche - DiSC su fondi MASE bando 2022 “Avviso Pubblico del 23/03/2022 finalizzato alla selezione di proposte progettuali inerenti attività di ricerca fondamentale nell’ambito del Piano Nazionale di Ripresa e Resilienza (PNRR) Missione 2 “Rivoluzione verde e transizione ecologica” Componente 2 “Energia rinnovabile, idrogeno, rete e mobilità sostenibile” Investimento 3.5 “ricerca e sviluppo sull’idrogeno” finanziato dall’Unione Europea - NEXT GENERATION EU a valere sul Decreto del Ministro della Transizione Ecologica del 23/12/2021, art. 1, comma 5, lettera A” PNRR - M2-C2/ INVESTIMENTO 3.5 Proposta progettuale denominata “PRODUZIONE, USO, SOSTENIBILITÀ DI H2 GREEN – PUSH2GREEN” - CUP: in fase di comunicazione e su fondi MAECI bando 2024 Avviso Pubblico 2024 per i progetti di ricerca bilaterali Italia – India nell’ambito del Programma Esecutivo di cooperazione scientifica e tecnologica, per il triennio 2025-2027 - Proposta progettuale denominata “Soluzioni solide difettuali come catalizzatori per l’ossidazione dell’acqua in elettrolita acido in elettrolizzatori membrana a scambio protonico a basso costo” - CUP C93C25002010001 **-** **Topic:** Development of Low-PGM and PGM-Free Electrocatalysts for PEM and AEM Electrolyzers; **1** scholarship funded by Electrolux Italia S.p.A. **-** **Topic:** New methods for real-time monitoring and optimization of washing processes in household appliances;
	Positions without scholarship	n. 1	
	Total number of positions	**n. 4**	
Selection criteria	PRESELECTION ON THE BASIS OF EVALUATION OF QUALIFICATIONS AND ORAL EXAMINATION		
Oral examination via remote interview:	Applicants who have requested it in the application form will take the oral exam via remote interview using the ZOOM videoconference tool.		
Evaluation criteria	Qualifications: points max 40 Oral examination: points max 60		

Documents to be submitted	Thesis:	Points: max 8	Applicants who already obtained the MSc degree (or equivalent) are required to submit a summary of the master thesis project of max. 2 pages (signed by the applicant) along with a copy of the thesis. Applicants waiting to be awarded the MSc (or equivalent) qualification by September 30th, 2025 are required to submit a summary of the master thesis project (max. 2 pages) signed by both the applicant and the supervisor. The congruence of the thesis topic with respect to the Research Areas of the PhD Course (https://phd.chimica.unipd.it/mst/research/research-areas) will be evaluated.
	Curriculum:	Points: max 24	Applicants must submit their CV prepared mandatorily following the template that can be downloaded at the PhD Course webpage: https://phd.chimica.unipd.it/mst/admission/admission-2025 The CV must contain in particular: 1) for both the Bachelor (BSc) and Master (MSc) degrees, the transcript of records (ToR), which should report the grades for each exam, their average grade, the final grade, the duration of the degree and the enrollment date; 2) other qualifications that the Applicant considers relevant to the evaluation (publications, oral presentations at conferences, periods spent in Italian or foreign Universities or Research Laboratories, etc.)
	Research project:	Points: max 8	Applicants should present an original research project drafted according to the template that can be downloaded from https://phd.chimica.unipd.it/mst/admission/admission-2025. In the case of participation in more than one fixed theme scholarships, the candidate will submit only one project, the one of his/her primary interest. The project must include the state of the art of the research, the methodology, the expected results and the impact in materials science. As detailed in the template, the document must include the motivation Letter describing the Applicant's research interests, motivating in particular how these can be achieved within the MST PhD Course
Publication of the results of the evaluation of the preselection	Within **11 SEPTEMBER 2025** the evaluating Commission will publish the results of the evaluation of the qualifications in the following website: **https://phd.chimica.unipd.it/mst/results** In order to be admitted to the examination, the candidate must get a score of at least 7/10 in the preselection.		
Publication of the timetable of remote interviews and instructions on how to use the ZOOM video conferencing	By 11 SEPTEMBER 2025 the commission will publish on the course website https://phd.chimica.unipd.it/mst/results the timetable of the remote interviews and the instructions on how to use the ZOOM video conferencing for those applicants who have chosen in the application form to take the oral examination via remote interview and who have passed the preselection on the basis of the qualifications with a pass-mark of at least 7/10.		
Oral examination	17 SEPTEMBER 2025 09:00 - Aula C from 9:00 to 11:30 and aula F from 12:00 to 18:00 - Dip. Scienze Chimiche Via F. Marzolo 1 35131 Padova		

Language/s	**Foreign language/s assessment at the oral examination:** At the oral examination the commission will assess the knowledge of the following language: English **Admission exam:** The admission exam will be taken in: either Italian or English
Examination topics	The interview will assess the competences of the candidate about the basic theories and the techniques for the experimental/numerical study of microscopic and macroscopic properties of materials and of their synthesis, in particular through: (i) the discussion on his/her master thesis work and (ii) the proposed research project that should be coherent with the topics of the MST Course (https://phd.chimica.unipd.it/mst/research/research-areas) and that should be performed under the supervision of a Member of the Academic Board of the MST Course (https://phd.chimica.unipd.it/mst/academic-board
PhD Course Website:	https://phd.chimica.unipd.it/mst/
Further information	**Department:** SCIENZE CHIMICHE - DiSC **Address:** Via Francesco Marzolo - N. 1, 35131 Padova (PD) **Contact person:** Menna Anna **telephone**: 0498275657 **e-mail:** dottorati.chimica@unipd.it
How to apply	The application must be submitted only via the online procedure available at: **https://pica.cineca.it/unipd/dottorati41luglio** The documents must be attached in pdf format. The application and the attached documents are submitted authomatically by closing the online procedure, so no hard copy of the application and of the documents must be sent to the office.
Deadlines	Publication of the ranking lists and enrollment from **24 September 2025** Beginning of PhD courses **1 November 2025**