# CHEMICAL SCIENCES

<table>
<thead>
<tr>
<th>Cycle</th>
<th>XXXII</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>3 years</td>
</tr>
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</table>
| Coordinator  | Prof. Roberto CAMMI – Department of Chemistry  
E-mail: roberto.cammi@unipr.it |

## Research Topics

The applicant MUST indicate one research topic:

- Design and synthesis of molecular machines
- Pharmaceutical applications of coordination chemistry
- Study of metallic clusters and their applications
- Nanomaterials and bioreceptors for the development of electrochemical biosensors
- Multivalent supramolecular derivatives interacting with biomacromolecules
- Study of coordination compounds

## Training objectives

The training program aims to provide to the PhD. in Chemical Sciences the skills necessary for managing advanced research projects in the fields of analytical chemistry, general and inorganic chemistry, physical chemistry, industrial chemistry, and organic chemistry. The Doctorate of Chemical Sciences requires each student to operate within one of the research groups at the Department of Chemistry, and to follow a specific training program within the chosen sector, also through participation to research activities in other qualified centers in Italy and abroad, attendance of national and international schools and conferences, and through the publication of the scientific results achieved on international journals. There will also be interdisciplinary educational activities aimed to develop the ability of PhD students to explain, discuss, disclose the subject of their work both in academic and industrial environments and also more generally in society.

## 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

<table>
<thead>
<tr>
<th>With Scholarship</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>6</td>
</tr>
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</table>

## KIND OF SCHOLARSHIP

<table>
<thead>
<tr>
<th>N°</th>
<th>Funding entity</th>
<th>Research Topic, if any</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Scholarship Ministerial funds</td>
<td>--</td>
</tr>
<tr>
<td>1</td>
<td>Scholarship University funds</td>
<td>--</td>
</tr>
<tr>
<td>1</td>
<td>Funded by Department of Chemistry</td>
<td>--</td>
</tr>
<tr>
<td>1</td>
<td>Co-funded by Fondazione Cariparma</td>
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# ADMISSION PROCEDURES

**Assessment of QUALIFICATIONS:** up to 40 points

**ORAL EXAM:** up to 80 points

**Minimum score for ELIGIBILITY:** 70/120

<table>
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<tr>
<th>Foreign Language</th>
<th>Language the fluency of which shall be assessed during the Oral Exam: <strong>ENGLISH</strong>. The evaluation of the knowledge of this language will be oral and will consist in comprehension of scientific texts.</th>
</tr>
</thead>
</table>

**Possibility of videoconference for candidates residing abroad**

(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  
Relevance of the graduation thesis to the research topics of the Doctorate Program | Up to 15 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), awarding of scholarships, prizes, trainings | Up to 15 points |
| Statement of Research Interest | Short text – maximum 1 page – 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 published in scientific journals with referee, Papers presented at conventions or meetings | Up to 5 points |

## SCHEDULE OF THE ADMISSION EXAMS

**ORAL EXAM**

**ORAL EXAM DATE:** 13 September 2016  
**TIME:** 2:30pm  
**PLACE:** "Sala Ferrari" of the Department of Chemistry  
Parco Area delle Scienze, 17/A – 43124 PARMA, ITALY

**Oral Exam topics**

The Oral Exam will be held in Italian or in English for foreign candidates. It will consist in a discussion on the qualifications submitted by the candidate, as well as in the assessment of his/her scientific background and research designing skills. The candidate's fluency in English will be assessed in terms of comprehension of scientific texts.

**OTHER INFORMATIONS**

For foreign candidates, the admission examinations may be held in English at the candidate's choice.