A thorough programme in the heart of chemistry, covering all stages from molecule design to application

Molecular chemistry is a creative science, where chemists synthesize molecules with new biological or physical properties to address scientific or societal challenges. Working with chemical structures, the possibilities are endless: in principle, every molecule can be made. The challenge is to adapt the 3D-structure to the desired properties and design an efficient synthesis method.

Why study this specialisation at Radboud University?
- The Institute for Molecules and Materials (IMM) hosts a large and internationally renowned cluster of molecular chemistry groups, where you will participate in challenging research projects.
- Among the teaching staff are one Spinoza Prize winner, two ERC advanced grant and two ERC starting grant winners.
- We have close contact with top research groups elsewhere in the world, which makes it possible to do your internship at for example Oxford, Princeton or Berkeley University.
- Teaching takes place in small groups and in a stimulating, personal setting.

change perspective

Radboud University
Programme outline (2 years, 120 EC)
The programme of this specialisation depends on the Master’s that you follow: Chemistry or Science.

Chemistry                      Science

<table>
<thead>
<tr>
<th>Compulsory courses (15 EC)</th>
<th>Compulsory courses (15 EC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialisation electives (12 EC)</td>
<td>Specialisation electives (6 EC)</td>
</tr>
<tr>
<td>Free electives (6 EC)</td>
<td>Free electives (6 EC)</td>
</tr>
<tr>
<td>Philosophy elective (3 EC)</td>
<td>Philosophy elective (3 EC)</td>
</tr>
<tr>
<td>Internship (34 EC)</td>
<td>Internship 1 (39-54 EC)</td>
</tr>
<tr>
<td>Literature thesis (6 EC)</td>
<td>Literature thesis (6 EC)</td>
</tr>
<tr>
<td>Minor programme (24 EC)</td>
<td>Internship 2 (30-45 EC)</td>
</tr>
</tbody>
</table>

Courses
Below you can find an overview of the compulsory courses and some examples of electives. Please have a look at the online prospectus (see ‘More information’) for more detailed information.

Compulsory courses
• Systems Chemistry (3 EC)
• Advanced Organic Synthesis (3 EC)
• Molecular Materials (3 EC)
• Polymer Chemistry (3 EC)
• Instrumental Analysis in (Bio)Molecular Chemistry (3 EC)

Examples of specialisation electives
• Organic Chemistry of Biomolecules (3 EC)
• Advances Crystallography (3 EC)
• Materials Science (3 EC)
• Physical Organic Chemistry of the Cell (3 EC)

Research internship
During your internships, you will be responsible for your own experiments, under the supervision of one of our top researchers. A selection of research groups for this specialisation are:
• Synthetic Organic Chemistry (soc.science.ru.nl)  
  > Prof. Floris Rutjes
• Physical Organic Chemistry (ru.nl/physicalorganicchemistry)  
  > Prof. Wilhelm Huck
• Chemistry of Complex Molecular Systems (ru.nl/bio-orgchem)  
  > Prof. Daniela Wilson

You can also choose to work at another institute, university or company. There are, for example, close contacts with the Max Planck Institute in Germany. For other possibilities, you can always contact a lecturer or the student advisor (see ‘More information’).

Your advantages on the labour market
With this specialisation you’ll make an excellent researcher; approximately 40% of our graduates take up a PhD position, either in Nijmegen or elsewhere in the world. Our research institutes, in particular the Institute for Molecules and Materials, have vacancies for PhD projects every year. The Molecular Chemistry graduates also find work as researchers, marketers and managers in the chemical industry, or in one of our spin-off companies. A small proportion will not work in science, but for instance as a policymaker at a governmental organisation such as NWO or STW.

Admission requirements
You are required to have a Bachelor’s degree in Chemistry, Science (with relevant subjects), or a closely related discipline. You must also have a sufficient proficiency in English.
Students from a University of Applied Sciences (HBO) need to follow a minor or pre-Master’s in Chemistry. Other additional deficiency programmes are tailor-made. For details, please visit the website or contact the student advisor (see ‘More information’).

Application procedure
The programme starts in September. The application deadline is 1 April for students from non-EU/EEA countries and 1 May for students from within the EU/EEA.
You apply for the Master’s programme in Chemistry, or Science via www.studielink.nl. After admittance to the Master’s programme, you can enrol for the specialisation in Molecular Chemistry.

>>> More information
Prospectus: www.ru.nl/prospectus/sciencefaculty

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www.ru.nl/masters/molecularchemistry