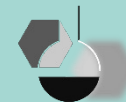




Universität  
Basel

Departement  
Chemie

Departement  
Chemie

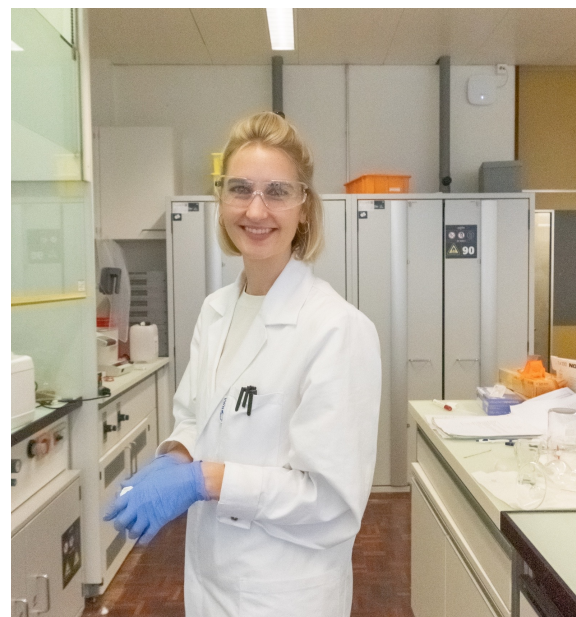


# MSc in Chemistry



# Why chemistry at the University of Basel?

- The Master's program (3 semester, 90 CP) includes a specialization with hands-on experience.
- Study in a friendly and international atmosphere.
- Have close contact with professors.
- Have contact to the Basel chemical industry in joint seminars and lectures.
- Basel is the city of chemistry.



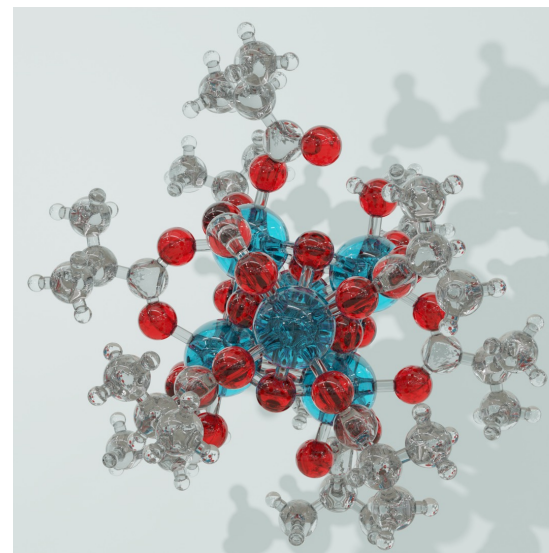


# Research focus at the Department of Chemistry

**Our research covers the whole breadth and thematic diversity of modern chemistry.**

In addition to the classic fields of inorganic, organic and physical chemistry:

- Chemical Biology
- Nanomaterials  
(nanocrystals, molecular systems, ...)
- Synthesis & Catalysis
- Theoretical Chemistry, Machine Learning



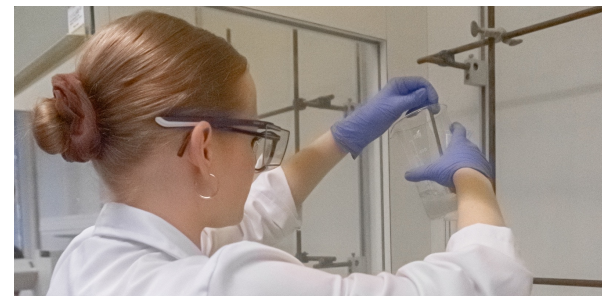
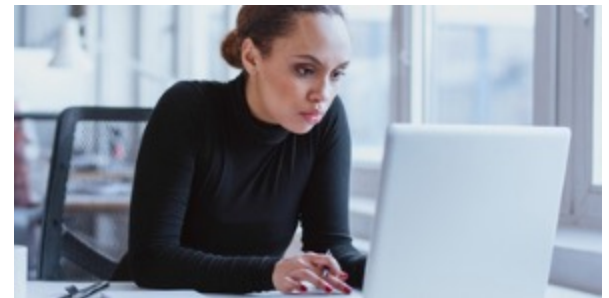
Please visit the website of the Department of chemistry for more information:  
<https://chemie.unibas.ch/en/research/research-in-brief/>



# What do you do when you graduate?

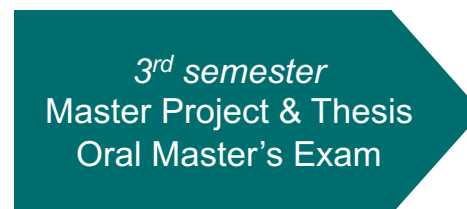
**As a chemist you have a broad variety of career options**

- Chemical research
- Education
- Process development
- Quality control
- Environmental protection
- Science communication
- Food industry
- Forensics
- Consulting, patent lawyer
- ...



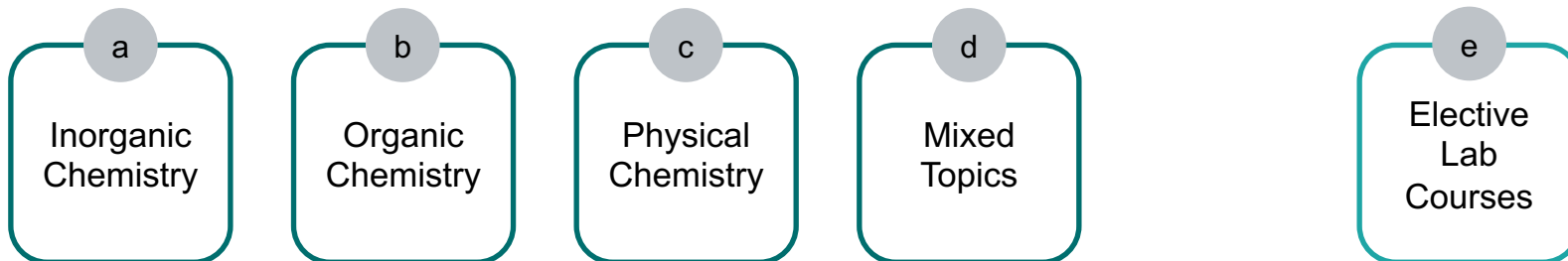
# Program Structure

Module	Credit Points
a. Inorganic Chemistry	30 in total <u>compulsory lectures</u> (12 CP, chosen from at least two different modules a, b or c) <u>elective lectures</u> (18 CP, modules a-d)
b. Organic Chemistry	
c. Physical Chemistry	
d. Mixed Topics	
e. Elective Laboratory Courses	30
f. Master's Project and Thesis	26
g. Oral Master's Exam	4



# Program Structure – lectures and elective lab courses

Lectures are grouped in **modules a-d**.



## Lectures (usually 3 CP each)

Compulsory lectures (12 CP) in the core subjects inorganic chemistry, organic chemistry and physical chemistry must be chosen from at least two different modules a-c.

Elective lectures (18 CP) can be chosen from modules a-d.

## Elective laboratory courses (30 CP)

6 weeks fulltime or 12 weeks part-time.

Must be completed in two different research groups.

# Compulsory Lectures

Inorganic Chemistry	Organic Chemistry	Physical Chemistry
Metals in Biology	Chemical Biology	Soft Matter and Polymers
Photophysics and Photochemistry	Supramolecular Chemistry	Molecular and Chemical Physics
Colloidal Nanocrystals and Quantum Dots	Synthesis and Physical Properties of Nanomolecular Systems	Molecular Simulations with Chemical and Biological Applications
Surface Chemistry and Heterogenous Catalysis	Stereoselective Organic Synthesis	Advanced Molecular Spectroscopy
	Total Synthesis of Natural Products	
	Introduction to NMR Spectroscopy of Proteins and other Biomolecules	

For the full spectrum of courses offered, please refer to the course directory at <https://vorlesungsverzeichnis.unibas.ch>



# Elective Lectures / Mixed Topics

Elective Lectures / Mixed Topics		
Bioanalytical Sciences	Organic Reactions in Industry – Theory & Case Studies	X-ray Crystallography
Forensic Chemistry and Toxicology	Biocatalysis for Organic Synthesis	Electrochemistry – Basics and Practice (lecture and practical course)
Analytical Chemistry of the Atmosphere: Quantifying Climate Change	Discovery and Optimization of Bioactive Compounds	Basics in Recombinant Protein Production (practical course)

For the full spectrum of courses offered, please refer to the course directory at <https://vorlesungsverzeichnis.unibas.ch>.





# General Information

## Start of program

- spring or fall semester

## Admission requirements

- BSc in Chemistry from the University of Basel
- BSc in Chemistry from a University certified by the University of Basel (additional requirements may be necessary)

## Admission deadline

(does not apply for BSc students from the University of Basel)

- 30<sup>th</sup> April (for fall semester)
- 30<sup>th</sup> November (for spring semester)

## Language of instruction

- English

## Fellowships for international candidates

- Basel Excellence Fellowship for Master Studies
- Alfred Werner Master's Student Scholarship (by the Swiss Chemical Society)

# For more information visit

[www.chemie.unibas.ch](http://www.chemie.unibas.ch)



News and Events

Department

Research

Study

People



> Study



Bachelor's Program

Master's Program

PhD and Postdoc

Prospective Students

Documents

Contact

## Study Chemistry in Basel

Chemistry has a very long tradition at the University of Basel, the oldest University in Switzerland, and it is a fascinating science for all those who want to understand our environment. Chemistry is at the intersection of the natural sciences and the boundaries to other disciplines such as biology, physics or even medicine and computer science are blurred.

The chemistry program at the University of Basel takes this interdisciplinarity into account –in both teaching and > **research** the whole breadth and thematic diversity of modern chemistry is included.

A degree in chemistry from the University of Basel (> **Bachelor**, > **Master** or > **PhD** level) with its outstanding professor-to-student ratio and good international atmosphere qualifies you for a

### Further Information

Informational Events



Student Advice Center



Course Directory



# Any questions? Then ...

**... join us online**

at the Master's info event on **14 March 2024**

18.50-19.30 h: presentation

17.45 - 20.00 h: infodesk

**... visit our website**

<https://chemie.unibas.ch/study>



**... contact us**

Prof. Dr. Jonathan de Roo (for academic advice)

Email: [jonathan.deroo@unibas.ch](mailto:jonathan.deroo@unibas.ch)

Dr. Ina Emme-Papastavrou, study coordinator  
(for more administration-related questions)

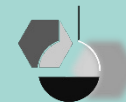
Email: [studium-chemie@unibas.ch](mailto:studium-chemie@unibas.ch)



Universität  
Basel

Departement  
Chemie

Departement  
**Chemie**



**Thank you**  
for your attention ...

... see you on **14 March 2024**