The Master Programme in Chemistry at Uppsala University has strong links to world-leading research conducted at the university. As a student, you will have the opportunity for in-depth studies of the specific area of chemistry in which you are most interested. Some of the specialisations include the tracks in Bio- and Nano Materials and Chemistry for Renewable Energy, which are unique specialisations for Uppsala University.

Uppsala University is a highly ranked university, and two of our eight Nobel laureates have been chemists. The chemistry education at Uppsala University was also ranked excellent in the latest ranking by the Centre for Higher Education Development, and was ranked top 100 by the QS World University Rankings.

A degree from Uppsala University will give you advantages in your career, not least thanks to the close connection to excellent and world leading research in areas such as: artificial photosynthesis, solar cells, effective batteries, material chemistry, drug development, biomarkers for medical diagnostics.

ABOUT THE PROGRAMME

The programme offers a choice between nine study tracks, all of which are based on strong areas of research at Uppsala University, providing you with cutting-edge expertise through in-depth studies in the particular area of your choice. Also, you may choose within the framework of your degree, to combine chemistry studies with subjects such as entrepreneurship or project management. You can also choose to study e.g. one semester as an exchange student.

Analytical Chemistry

The focus is on methods for analyses of samples from industry, the environment and medicine. It includes courses in separation and detection (especially courses in advanced mass spectrometry), as well as courses where you work in larger projects using modern research instrumentation and multivariate data analysis. Read about our research within analytical chemistry.

Biochemistry

Biochemistry is the chemistry of life. This track concentrates on cellular processes with focus on the chemical aspects of structure/function relationship in biomolecules. The specialisation is linked to current research in enzymology, pharmaceutical development and protein design by directed evolution. Read about our research within biochemistry.

Bio- and Nano Materials

This study track combines theoretical knowledge and practical skills in organic chemistry, chemical biology, as well as materials chemistry, and includes the chemical, biological, and mechanical properties of soft materials. This is a major growth area, and...
includes e.g. tissue engineering, soft functional nanomaterials, biosensors, and materials for drug transport and delivery. We have research within all these areas. Read about our research within tissue engineering. Read about our research within materials for drug transport and delivery.

Chemical Biology
Chemical Biology provides chemical understanding of biological phenomena with applications in pharmaceuticals, diagnostics and biotechnology. The courses partly overlap with the biochemistry track, but one can also choose courses with a more organic chemistry focus.

Chemistry for Renewable Energy
This unique study track focuses on the chemical principles, materials and methods relevant for the development of renewable energy resources and energy carriers. Such techniques include solar-based methods such as solar cells and artificial photosynthesis and “solar fuels”, as well as hydrogen production, fuel cells and efficient batteries. This specialisation has been developed in close cooperation with internationally distinguished and world leading research groups within these areas at the Ångström Laboratory.

EACH - Excellence in Analytical Chemistry
This international two-year joint Master's degree programme, EACH - Excellence in Analytical Chemistry, educates specialists in analytical chemistry well qualified to work in industry and chemical analysis laboratories worldwide. The specialisation EACH is an Erasmus Mundus programme that is taught by four universities: University of Tartu (UT, coordinator), Estonia; Uppsala University (UU), Sweden; University Claude Bernard Lyon 1 (UCBL), France; and Åbo Akademi University (AAU), Finland. The programme has been recognised by the EU as a joint Master's degree programme. All students spend their first year in Tartu. The second year is oriented towards specific applications of analytical chemistry and is spent either at UCBL, UU or AAU. More information and application procedure: www.ut.ee/EACH.

Organic Chemistry
This track is designed for those who want to learn more about modern synthetic methods and strategies, enabling you to work independently with chemical problems involving carbon compounds. The specialisation includes the study of chemical reactions and their mechanisms, catalysis, design of efficient synthesis strategies, purification and characterisation of products, and theoretical models. Particular emphasis is put on developing skills in independent practical work in the laboratory.

Physical Chemistry
Physical Chemistry focuses on chemical phenomena at the molecular level with the help of fundamental physical laws. This knowledge forms the basis for most other areas in chemistry, and a physical chemist can work in many different areas of chemistry. This can also be seen from the broad range of courses offered in this study track. Common specialisations are soft materials including surface and colloid chemistry and polymer materials, simulation methods and modelling, and spectroscopic methods with applications in e.g. solar cells or artificial photosynthesis.

Theoretical Chemistry
Theoretical Chemistry provides theoretical and computational tools required to model and simulate chemical processes and reactions in a broad range of fields in chemistry. Several courses during the first year are the same as for the physical chemistry specialisation, but this study track also contains courses treating quantum chemical computational methods at an advanced level. Read about our research within theoretical chemistry.

DEGREE
The programme leads to a Master of Science (120 credits) with Chemistry as the main field of study.

INSTRUCTION
Theory and practical work are always interwoven into the courses, and instruction takes place in the form of lectures, laboratory work, problem solving, seminars and projects.

The lecturers are active researchers, and we emphasise coaching you to adopt a scientific approach in your work where you will develop the necessary skills to solve problems, to think critically and analytically, and to independently plan and formulate research projects.

You will also receive systematic training in both oral and written presentations as an integrated part of the courses. The ability to communicate well will be very important in your future occupation.

The language of instruction is English.
First semester
You will study chemistry courses which provide you with the theoretical and experimental skills needed for the subsequent semesters.

Second, third and fourth semester
During the second and third semesters, you will take courses within your specialisation, or prepare your own combined study plan. The programme will end with a degree project of 30 or possibly 45 credits. During your studies you will also come into contact with many cutting-edge research groups and gain insight into their research activities.

See outlines for courses within the specialisations:
- Analytical Chemistry
- Bio and Nano Materials
- Biochemistry
- EACH - Excellence in Analytical Chemistry
- Physical Chemistry
- Chemistry for Renewable Energy
- Chemical Biology
- Organic Chemistry
- Theoretical Chemistry

CAREER
A Master of Science in Chemistry from Uppsala University will provide you with many opportunities to build an exciting future career in industry, the public sector, entrepreneurship or in academia. Not only will you gain the knowledge and ability to perform special and advanced tasks in your field, you will also be qualified for positions in many other areas where problem-solving, abstract thinking and analytical ability are required.

Surveys have shown that the labour market for chemists with a degree from Uppsala University is excellent, with 97 per cent of those who obtained their degree during the last ten years being either employed or undertaking doctoral studies.

Chemical issues are found in most sectors. Chemists hold key positions in addressing future challenges such as sustainable energy systems, clean and efficient production of recyclable materials and non-hazardous products, as well as new pharmaceuticals and vaccines.

Possible career paths can vary. You may work with research and development, production processes, analysis of materials, management of safety and legal issues, patenting of inventions, marketing and sales, or environmental and sustainability issues.
ANALYTICAL CHEMISTRY

120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1378
Language of Instruction: English

Requirements:
Academic requirements
A Bachelor’s degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:

- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.

Selection: Students are selected based on:

- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees: If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000

BIO AND NANO MATERIALS

120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1379
Language of Instruction: English

Requirements:
Academic requirements
A Bachelor’s degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry, biology and physics, of which at least 60 credits must be in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:

- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.

Selection: Students are selected based on:

- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees: If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000
BIOCHEMISTRY

120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1377
Language of Instruction: English
Requirements:
Academic requirements
A Bachelor’s degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry and biology, of which at least 60 credits must be in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:
- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.

Selection: Students are selected based on:
- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees:
If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000

EACH - EXCELLENCE IN ANALYTICAL CHEMISTRY

120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-31
Language of Instruction: English
Requirements:
Academic requirements
A Bachelor’s degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is:
- 60 credits in chemistry or chemical engineering; and
- 20 credits in mathematics and/or physics.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:
- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.

Selection: See www.ut.ee/EACH/admission-requirements/ for information about the selection procedure.

Fees:
If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

Application Fee: SEK 900
Tuition fee, first semester: SEK 57000
Tuition fee, total: SEK 228000
PHYSICAL CHEMISTRY
120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1375
Language of Instruction: English
Requirements:
Academic requirements
A Bachelor's degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry and physics, of which at least 60 credits must be in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:
- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.
Selection: Students are selected based on:
- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees: If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.
Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000

CHEMISTRY FOR RENEWABLE ENERGY
120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1371
Language of Instruction: English
Requirements:
Academic requirements
A Bachelor's degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:
- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.
Selection: Students are selected based on:
- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees: If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.
Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000
CHEMICAL BIOLOGY
120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1372
Language of Instruction: English
Requirements:
Academic requirements
A Bachelor's degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry and biology, of which at least 60 credits must be in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:

- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.
Selection: Students are selected based on:
- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees: If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000

ORGANIC CHEMISTRY
120 credits
Autumn 2017 100% Campus
Location: Uppsala
Application Deadline: 2016-01-15
Enrolment Code: UU-M1376
Language of Instruction: English
Requirements:
Academic requirements
A Bachelor's degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university.
Also required is 90 credits in chemistry.

Language requirements
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:

- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.
Selection: Students are selected based on:
- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

Fees: If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

Application Fee: SEK 900
Tuition fee, first semester: SEK 72500
Tuition fee, total: SEK 290000
THEORETICAL CHEMISTRY

120 credits

**Autumn 2017** 100% Campus

**Location:** Uppsala

**Application Deadline:** 2016-01-15

**Enrolment Code:** UU-M1374

**Language of Instruction:** English

**Requirements:**

**Academic requirements**
A Bachelor’s degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university. Also required is 90 credits in chemistry and physics, of which at least 60 credits must be in chemistry.

**Language requirements**
All applicants need to verify English language proficiency. This is normally attested by an internationally recognised test such as TOEFL or IELTS with the following minimum scores:

- IELTS: an overall mark of 6.5 and no section below 5.5
- TOEFL: Paper-based: Score of 4.5 (scale 1–6) in written test and a total score of 575. Internet-based: Score of 20 (scale 0–30) in written test and a total score of 90
- Cambridge: CAE, CPE

Exemptions for students from certain countries.

**Selection:** Students are selected based on:

- a total appraisal of quantity and quality of previous university studies; and
- a statement of purpose (1 page).

**Fees:** If you are not a citizen of a European Union (EU) or European Economic Area (EEA) country, or Switzerland, you are required to pay application and tuition fees. Read more about fees.

**Application Fee:** SEK 900

**Tuition fee, first semester:** SEK 72500

**Tuition fee, total:** SEK 290000

**CONTACT & MORE INFO**

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