Master Programme in Forensic Science 2017/2018

Most crime scenes contain traces that can play a critical role as evidence following a genetic, chemical or toxicological analysis. The advanced and constantly improved methods for analysing technical evidence make Forensic Science a growing field. The Master Programme in Forensic Science will enable you to meet the increasing need for forensic competence and research, but the knowledge can also be used in other areas.

ABOUT THE PROGRAMME

The Master Programme in Forensic Science in Uppsala provides you with a knowledge and understanding of how to apply biological and chemical analyses in crime scene investigations. The programme introduces you to generally used methods and technologies for broad knowledge and skills. Several of the laboratory components in the courses are connected with issues of criminalistics and based on novel research. The methods are generally used in many other areas apart from forensic science. The Master Programme in Forensic Science is thus a broad education with close ties to research.

DEGREE

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

INSTRUCTION

Instruction is comprised of lectures, project work, laboratory work, group instruction, demonstrations, and study visits. The course elements will develop your creativity, critical thinking and problem-solving ability. You will work with compilation of information, evaluate scientific articles and learn to critically review methods and data.

Attendance is compulsory at lectures containing demonstrations, group instruction, seminars, laboratory work and autopsies.

A seminar series with lectures about, for example, presentation techniques, research ethics and bioethics is given during the first semester.
Year 1
Semester one of the programme starts with a course in medical genetics where you will develop your understandings of Genetic inheritance, how genetic diseases arise and how these are diagnosed, as well as get an overview of the techniques used in genetic analysis and research. This is followed by an introduction to the field of forensic science and crime scene analyses where lecturers from crime scene units in the police organisation will provide you with insight into their work and methods. This is followed by a course Forensic Genetics and Medicine. You will learn how forensic medical investigations and analyses are performed. In the forensic genetics part you will gain knowledge about molecular biological methods used in crime scene investigations. You will participate in laboratory work and learn how to make use of DNA databases and statistics in evaluating results. You will also participate in a seminar series for all Master’s students at the medical faculty.

Semester two starts with an elective period of ten weeks where you can choose to take the course Genomic and Epigenomic Medicine, do a literature project in forensic biology, or (if you are fluent in Swedish) take a course in criminology at Stockholm University. This will be followed by the course Forensic Chemistry, which will provide you with insights into the different crime scene analyses based on analytical chemistry. You will also practise methods for analysing traces from crime scenes, using traditional and new analytical technologies.

Year 2
During semester three you will add depth to your knowledge of toxicology and analytical chemistry. The course Analytical Toxicology includes: toxicology, analytical chemistry, and acute poisoning. The thread running through the course is the various types of exposures which "will be discussed", on the one hand from a toxicological perspective (underlying mechanisms and risk assessment/safety evaluation), and, on the other hand, an analytical chemistry perspective (focusing on taking samples, separation, and detection). You will also carry out an individual project that you will present orally and in writing.

In semester four you will conclude the programme with an individual degree project which can be carried out in a crime laboratory, in a company, at a university, or governmental agency. You can also carry out your degree project abroad and choose from a wide range of different topics (not restricted to forensic science).

COURSES WITHIN THE PROGRAMME

Semester 1
Medical Genetics, 7.5 credits
Forensic Science and Criminalistics, 7.5 credits
Forensic Genetics and Medicine, 15 credits

Semester 2
Elective period, 15 credits
Forensic Chemistry, 15 credits

Semester 3
Analytical Toxicology, 30 credits

Semester 4
Degree Project, 30 credits

CAREER

The programme is intended for those wishing to broaden and deepen their earlier knowledge in biology and chemistry with an orientation towards issues of forensic and toxicological analysis. The broad competence in forensic biology, toxicology, and chemistry prepares you for work in many types of laboratories. The programme also provides you with broad knowledge of human genetics, molecular biology, toxicology and analytical chemistry, which paves the way for careers in the food industry, pharmaceutical industry, environmental monitoring, and biotechnology industry. The programme further prepares you for continued PhD studies (research level).

APPLICATION AND REQUIREMENTS

The second round of application is open and closes on April 15. This round is primarily for students not requiring visa, since admissions will not be decided until beginning of July. Applications must be through the Swedish application system, www.antagning.se. For more information, please contact the programme before applying.
MASTER PROGRAMME IN FORENSIC SCIENCE

120 credits

Autumn 2017 100% Campus

Location: Uppsala

Application Deadline: 2016-01-15

Enrolment Code: UU-M3801

Language of Instruction: English

Requirements:

Academic requirements
A Bachelor's degree, equivalent to a Swedish Kandidatexamen, from an internationally recognised university. The main field of study must be in immunology, biomedicine, chemistry, biotechnology, biology, or a similar field of study that gives relevant knowledge in cell and molecular biology, chemistry and biochemistry.
Also required is knowledge and practical experience of laboratory experiments in life sciences.

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 with emphasis on grades in relevant fields;
- a statement of purpose; and
- a summary in English (1–2 pages) of a degree project.

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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For general information about Master’s studies at Uppsala University, please send an email to: masterprogrammes@uu.se