Master Degree Programme

MSc in Toxicology

Department of Pharmaceutical Sciences, University of Basel
Swiss Centre for Applied Human Toxicology (SCAHT)

(•) Drug and Chemical Safety Sciences
Why study Toxicology in Basel?

The Master of Sciences in Toxicology provides theoretical and practical skills in toxicology, with a major focus on drug safety sciences.

The curriculum was developed by a collaboration of the Faculty of Pharmaceutical Sciences at the University of Basel and the Swiss Centre for Applied Human Toxicology in close collaboration with safety scientists from the Basel-based life science industry and regulatory authorities.

A unique feature of the course is the emphasis on practical experience with the second year almost entirely devoted to project work in a laboratory at the university, the regulatory authorities or the life science industry.

The course fulfills the theoretical requirements for subsequent registration as a professional toxicologist of the Swiss and European Register for Toxicologists.
Career Prospects
The MSc in Toxicology is focused on a future career in industrial or academic research, product development or in a regulatory agency.

With this qualification, and potentially a subsequent doctorate, you acquire an excellent foundation for a position in basic or applied toxicological research, and in the safety investigation and risk assessment of pharmaceuticals and industrial chemicals.

Admission Criteria
To be admitted to the Master of Science in Toxicology, you must have a Bachelor degree with a mark of 5.0 or more in one of the following disciplines: Pharmaceutical Sciences, Human Medicine, Veterinary Medicine, Biology, Chemistry, Biochemistry, or Environmental Sciences.

If you have another university degree (Swiss or foreign universities) you may submit your written application. The responsible commission determines the equivalence of your educational qualifications and degrees.

Enrolment
The Master Course starts in the Autumn term only (registration deadline: April 30)
Course language: English
Registration documents can be found here: www.unibas.ch/anmeldeformulare
Detailed information is sent to the applicants upon approval of their registration application.

Course Director
Prof. Dr. Alex Odermatt
Division of Molecular and Systems Toxicology
Pharmacenter
Klingelbergstrasse 50
CH-4056 Basel

Programme Structure
1st semester
Basic Knowledge in Toxicology and Pharmacology:
Essentials in Toxicology, Drug Delivery and Drug Targeting, Molecular and Pathologic Basis of Disease, Pharmacology, Cancer: Basics, Cause and Therapy
Specific Knowledge in Toxicology:
Computer Modeling of Toxic Phenomena
Skills Related to Toxicology and Pharmacology:
Pharmaco-toxicoepidemiology
Knowledge in Experimental Research:
Animal Experimentation, Alternatives to Animal Testing, Biostatistics and Experiment Planning, Bioanalytics and Xenobiotic Metabolism and Disposition
Practical training:
Histology/Anatomy
Facultative courses

2nd semester
Basic Knowledge in Toxicology and Pharmacology:
Essentials in Toxicology, Clinical Toxicology
Specific Knowledge in Toxicology:
Pharmacogenomics and Toxicogenomics, Safety Assessment in Drug Development, Environmental Toxicology, Reproductive Toxicology, Immunological and Skin Toxicology, Case Seminars in Toxicology, Neurotoxicology, Regulatory Toxicology, Risk Assessment, Food Toxicology
Knowledge in Experimental Research:
Molecular and Functional Imaging
Practical training:
Practical Toxicology I, Practical Toxicology II (at site of Master Project)

3rd + 4th semester
Master thesis project (9 months)
Master thesis exam
Skills Related to Toxicology and Pharmacology:
Seminars in Drug Discovery and Development
Specific Knowledge in Toxicology:
Seminars in Molecular Toxicology

Information on the scheme of study (Study guidelines, Study guidance):
http://www.pharma.unibas.ch (Teaching – MSc Toxicology)
Tuition Fee
The Master Course fee is CHF 700.– per semester (incl. Thesis semester). Individual living costs and other study expenses (e.g. books, practical courses, travel costs) must be met by the student.

Scholarship and Grants
Student Welfare Office of the University of Basel:
Kollegienhaus
Petersplatz 1, CH-4003 Basel
Phone: +41 (0)61 267 30 23
E-mail: studsek(at)unibas.ch
http://www.unibas.ch

Student Advisory Service:
Steinengraben 5, CH-4051 Basel
Phone: +41 (0)61 267 29 29/30
E-mail: studienberatung(at)unibas.ch
http://studienberatung.unibas.ch

Department of Pharmaceutical Sciences
Course Coordinator/Student Guidance:
Roger Stutz, Pharmacenter
Klingelbergstrasse 50, CH-4056 Basel
Phone + 41 (0)61 267 15 53
E-mail: studienkoordination-pharma(at)unibas.ch
http://www.pharma.unibas.ch

Swiss Centre for Applied Human Toxicology (SCAHT)
The SCAHT is the only centre dedicated to applied human toxicology in Switzerland. It has four core fields of activity covering regulatory toxicology, applied research, education and third party services.
http://www.scaht.org

University of Basel
Homepage of the University of Basel:
http://www.unibas.ch
Annotated online course directory (German):
http://vorlesungsverzeichnis.unibas.ch
Prospectus of the University of Basel:
http://studienberatung.unibas.ch/studieninformation/basler-studienfuehrer

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Basel is a pulsating economic region in the heart of Europe. Renowned global pharmaceutical companies are headquartered in the city, and the region is home to Europe’s largest life-sciences cluster.