



Master Degree Programme **MSc in Toxicology**

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

MASTER OF SCIENCE IN TOXICOLOGY UNIVERSITY OF BASEL

Starts in Autumn 2011

AIM

Toxicology is the study of toxic effects of chemical substances on living organisms and their environment. Chemical and Drug Safety Sciences assess and quantify the potential risk of chemicals and pharmaceuticals to which humans and the environment are exposed, thus providing the necessary basis for protection measures. The pregraduate Master of Sciences in Toxicology provides theoretical and practical skills in toxicology, with a major focus on drug safety sciences.

ADMISSION CRITERIA

To be admitted to the Master of Science in Toxicology, the student 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.

Students with other university degrees (Swiss or foreign universities) may submit their written application. The responsible commission determines the equivalence of their educational qualifications and degrees.

ENROLMENT

The Master Course starts in the Autumn term only (registration deadline: April 30).

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

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, Risk Assessment

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

MSc Toxicology

120 ECTS credits, 4 semesters

LANGUAGE

English

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 38/20

E-Mail: sozialberatung@unibas.ch

CAREER PROSPECTS

The MSc in Toxicology is focused on a future occupation in industrial or academic research, product development or in a regulatory agency. With this qualification, and potentially a subsequent doctorate, the student acquires 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. The course fulfills the theoretical requirements for subsequent registration as a professional toxicologist of the Swiss and European Register for Toxicologists.

INFORMATION ON THE UNIVERSITY OF BASEL

Main Page:

<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/>

STUDENT OFFICES OF THE UNIVERSITY

Admission:

Petersplatz 1, CH-4003 Basel,

Phone: +41 (0)61 267 30 23

Web: <http://www.unibas.ch>

E-mail: studsek@unibas.ch

Student Advisory Service:

Steingraben 5, CH-4051 Basel,

Phone: +41 (0)61 267 29 29/30

Web: <http://studienberatung.unibas.ch/>

E-mail: studienberatung@unibas.ch

DEPARTMENT OF PHARMACEUTICAL SCIENCES

Course Coordinator/Student Guidance:

Roger Stutz, Pharmazentrum,

Klingelbergstrasse 50, CH-4056 Basel

Phone + 41 (0)61 267 15 53

Web: <http://www.pharma.unibas.ch>

E-mail: studienkoordination-pharma@unibas.ch

Information on the scheme of study

(Study guidelines, Study guidance):

Web: <http://www.pharma.unibas.ch>

(→ Teaching → MSc Toxicology)

SWISS CENTRE FOR APPLIED HUMAN TOXICOLOGY (SCAHT)

Web: <http://www.scaht.org/scaht/en/>

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