



MSc Biobanking

Graz – City of Biobanking

Graz is the European capital of biobanking. The headquarters of the European BBMRI-ERIC biobanking infrastructure and its Austrian node BBMRI.at as well as Biobank Graz, one of the largest clinical biobanks in Europe, are based in the same building in Graz.

Biobank Graz has a large collection of biological samples (7.5 million) with associated data in a structured and usable format. The major aim of Biobank Graz is to contribute to better health care of the population by supporting and servicing biomedical research.



Content and Relevance

The extensive growth of biobanks requires training of highly qualified personnel in the field of biobanking and different disciplines linked to it. To meet this development this University course provides knowledge and practical know-how about organisation, management, infrastructure and emerging challenges in biobanking.

The number of requests to use biological samples for medical research is constantly increasing over the last years. However, at the same time the requirements on quality of biobank samples (and data) will increase due to the growing spectrum of techniques and methods used for analysis and applications. For further development of biobanking processes the knowledge about prerequisites for such applications is of crucial importance to keep the quality of biobank resources up-to-date.

Course objectives

This course will provide the following skills and knowledge to the participants:

- ▶ Organisation of a biobank
- ▶ Implementation of a biobank in the health care system and in existing research infrastructure
- ▶ Representing a biobank and networking in the national and international arena
- ▶ Sample management including pre-analytic handling, logistics, storage and shipment
- ▶ Quality management
- ▶ ELSI (ethical, legal and societal issues of biobanking)
- ▶ Biobanking IT-landscapes and needs
- ▶ Biobank budgeting, business planning and sustainability
- ▶ Risk management of a biobank
- ▶ Management and communication
- ▶ Epidemiology
- ▶ Preparation and implementation of presentations and scientific essays
- ▶ Expertise in biobanking related research methodologies:

Genomics (e.g. RNA/DNA isolation, RT-PCR, sequencing, arrays), Microbiomics and Metabolomics, Microscopy and Histology, Proteomics (e.g. protein extraction, LC-MS/MS-analysis, 2D PAGE)

Master of Science Biobanking – Facts

Target Group:	<p>This distance learning Master course is open for graduates with a degree from a subject-relevant Bachelor's programme or a Diploma study or a subject-relevant Bachelor's programme of an advanced technical college (minimum 180 ECTS) or a degree from a Diploma study of an equivalent programme at a recognized nationally or internationally accepted tertiary education institution.</p> <p>A respective equivalent qualification can be confirmed by the study management in justified individual cases. In any case entry requirements are a high-school certificate qualifying for university admission in Austria, an appropriate experience in biobanking (minimum of three years) and evidence of methodical skills in science and research/scientific working (10 ECTS), which have been acquired at a recognized nationally or internationally accepted tertiary education institution.</p>
Duration:	<p>The degree requires a master thesis that should be completed within the four semesters of the study (90 ECTS). This university course is a part-time postgraduate program offered as a distance learning course. This is an international University course in the field of biobanking in English. The curriculum comprises 12 modules: 11 are mandatory modules and module 12 is a compulsory optional module. Each semester the students need to be present in Graz (Austria) for approximately one week to have hands-on training. Within these four semesters all mandatory modules, one of the compulsory optional modules and the Master's thesis should be completed.</p>
Degree:	MSc (Master of Science) Biobanking
Course fee:	€ 12 900 for the whole duration of four semesters
Type of teaching:	<p>Lectures and seminars are educated with training material developed especially for a distance learning course. They will be made available for download at the e-learning platform (moodle) at the beginning of each semester. The distance learning training material is made for self learning and is self-explanatory.</p>
Professional fields of graduates:	<ul style="list-style-type: none">▶ National and international biobanks (Organisation and implementation of biobanks / Management of biobanks)▶ Medical Research (Organisation and implementation of multicentre and clinical studies / Epidemiologic evaluation of studies)▶ Basic research▶ Analysis centres▶ Pharmaceutical industry▶ Diagnostic companies
Booking of single modules:	<p>Booking, admission and completion of individual modules as training sessions is also possible in accordance of free capacity. These modules can be successfully completed with a certificate of attendance.</p>
Start:	<p>You can find the latest information on registration and start dates on our homepage: www.medunigraz.at/mscibiobanking</p>

BioBank GRAZ



STUDY MANAGEMENT

Detailed information on the course „MSc Biobanking“ can be found on our homepage: www.medunigraz.at/mscbiobanking

BIOBANK GRAZ

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