

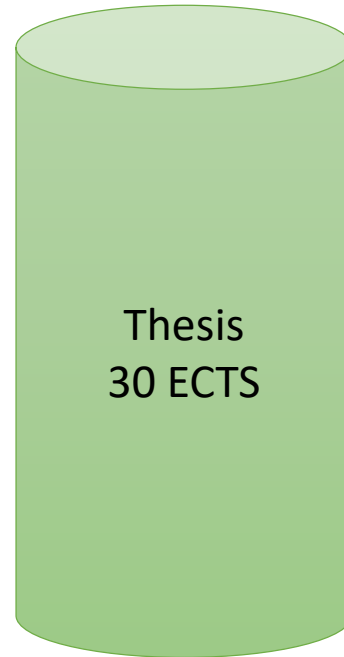
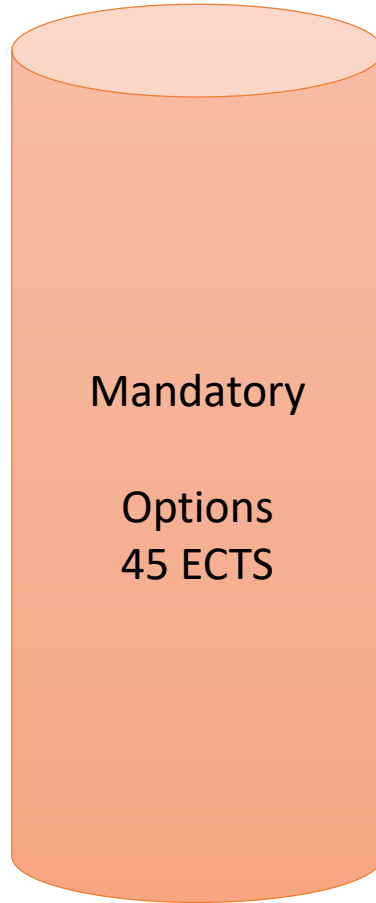
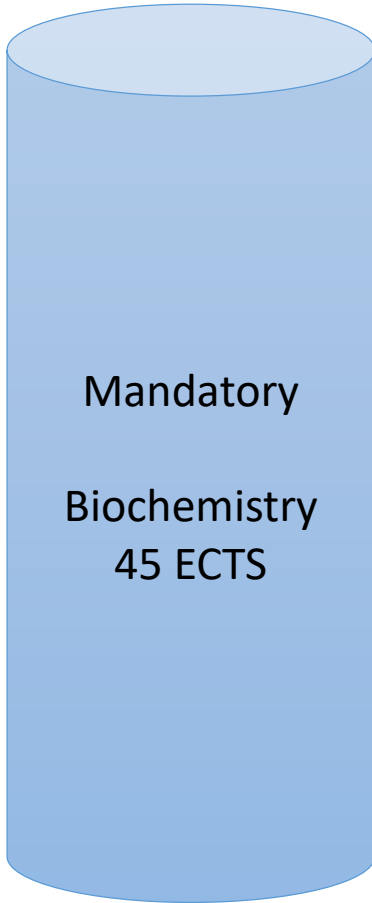
Master in Biochemistry

Welcome to the Department of Biochemistry of the LMU and the GeneCenter!

Introduction and guide to the program

- 4 semester program (max. 7 semester)
- Faculty of Chemistry (Dept. Biochemistry)/ Faculty of Biology

3 Blocks: 120 ECTS



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- 1. Mandatory: Biochemistry 45 ECTS
 - 2. Options: a second major subject plus one extension topic
or 3 extension topics 45 ECTS
 - 3. Thesis: 26 weeks (practical work and written work) 30 ECTS
- Each block contains several modules
 - „Module“: package of (usually) multiple courses

Block 1 - Mandatory subject: Biochemistry

45 ECTS

- 5 Modules:

- 1. Practical course Biochemistry including seminar P1 (15 ECTS)
- 2. Lectures: BC 5, BC 6, BC 7 P2 (9 ECTS)
- 3. Data analysis (block course with exercises) P3 (6 ECTS)
- 4. Colloquia/Seminar P4 (6 ECTS)
- 5. Practical course in Methods in Life Sciences P5 (9 ECTS)
(includes seminar)

Block 2 - Optional subjects: choices! 45 ECTS

2 possible combinations:

- 1. Major subject (30 ECTS) plus 1 extension topic (15 ECTS)
- 2. three extension topics (45 ECTS)
(see list of extension topics)

Major subject 30 ECTS:

3 lectures (9 ECTS) + practical course (15 ECTS) + seminar/colloquia (6ECTS)

Major subjects can be

1. Chemistry:

- organic
- anorganic
- physical
- theoretical chemistry

2. Biology:

- cell biology
- microbiology

Extension topics 15 ECTS:

2 lectures (6 ECTS) + practical course (9ECTS)

Dept. of Biochemistry

- Molecular and cellular genetics
- Structural biology
- Innate immunity and inflammation (!)

Dept. of Chemistry

- Inorganic chemistry
- Organic chemistry
- Physical chemistry
- Theoretical chemistry
- Chemical biology

Faculty of Informatics

- Informatics (taught in German)

Faculty of Biology

- Cell Biology
- Microbiology
- Genetics
- Human biology
- Molecular plant sciences
- Virology
- Fundamentals of Neuroscience

Faculty of Medicine

- Immunology

Block 3 – Master thesis 30 ECTS

- **Prerequisites:** all modules of block 1 (biochemistry) except the seminar/colloquia module P4 need to be passed prior to start of thesis
- **Duration:** 26 weeks (lab work and written work), no extension possible
- **Registration:** fill in form from website, hand in with Johanna Turck
- **External thesis:** + proposal, needs to be accepted by head of program
 - + “external” means: labs that are not part of the Faculty of Chemistry (Dept. Chemistry and Biochemistry) or the Faculty of Biology
 - + note: some labs at the Genecenter are **not** part of the Faculty of Chemistry!!

Master thesis –continued

- **Hand in:** 2 copies of your thesis: one with („internal“)supervisor,
one with Johanna Turck
- **Declaration:** work was done all by yourself with the given means, **signature!**
- **Certificate:** + date of certificate is the date of your last grade received
+ after grading of thesis work/last grade it will take around 2 weeks
to generate certificate
+ students will be informed by email when certificate is ready

Ins and outs....Lecture modules

Module exams (written or oral):

cover 3 lectures for main topics/ **2 lectures** for extension topics in one exam

Exceptions:

1. Structural Biology (Dept. Biochemistry),
Structural Biology 1 is a module by itself, is prerequisite for practical course
2. Human Biology (Faculty of Biology)
3. Neuroscience (Faculty of Biology)
4. Virology (Faculty of Biology)
 - these subjects are embedded in other programs of the Faculty of Biology,
two single exams, mean value
5. Immunology (Faculty of Medicine)

Module exams at the Dept. Biochemistry : written exams

-> registration per LSF (Webpage from LMU, login with your campus email address)

Module exams at the Dept. Chemistry: oral exams!!

-> registration at the examination office Dept. Chemistry, House F, room 5.02
registration only during announced registration periods, check website

Module exams in the Faculty of Biology: written exams

-> inquire at the respective office for the particular subject
(Prof. Jung for Microbiology, Prof. Böttger for cell biology,
Prof. Leonhardt/Dr. Meilinger for Human biology etc.)

Ins and outs.....practical courses modules

- selforganized practical courses: in research groups
 - Biochemistry (P1), Methods in Life Sciences (P5)
 - Cell biology, Microbiology
 - Chemistry subjects...
- preorganized block courses:
 - Molecular and cellular genetics (Dept. Biochemistry)
 - Structural biology
 - Innate immunity and Inflammation
 - Human biology (Faculty Biology)
 - Immunology (Faculty Medicine)

Duration practical courses:

6 wks/ 8 wks main subjects (15 ECTS)

3/ 4 wks extension topics (9 ECTS)

Rules:

- P1, P5 and practical in second major topic need to be done in different labs
- if P5 and Master thesis or practical extension topic and Master thesis are done in the same lab -> separation of projects, no continuation

External practical courses:

- “external” means: in groups outside Dept. Biochemistry/ Dept. Chemistry/ Faculty Biology
- require acceptance of a proposal, signed by head of program

Module P4: Seminar and colloquia

- P4 Seminar: 1-2 day block, announced on website
registration with teacher
- P4 Colloquia: list of 20 talks
attestation of attendance by signature of organizing Professor
currently only online per zoom (Corona)

Rules....

- duration of practical courses: 6 / 8 weeks for „big“ practical courses
3 / 4 weeks for extension topics
- practical course in Biochemistry (P1) and/or practical course of optional major subject **not** in the same lab of Bachelor thesis (only for students with a Bachelor from the LMU)
- practical course in Biochemistry and/or optional major subject and Methods in Life sciences **not** in the same lab
- module exam: once passed it can be taken **one more time** to improve grade on the **next offered exam date**

Recommendations....

- data analysis module (P3): do very early, 25 spots available
- start listening to scientific talks (colloquia) early on
- **read** the information on our website!!

Information and Registrations

- Information: website Genecenter www.genecenter@lmu.de
 - + please scroll down!
 - + explains structure of program, has information on all subjects
 - + links you to other platforms, LSF and Moodle
 - LSF= LehreStudiumForschung = TeachingStudiesResearch)
- Registrations:
 - + preorganized practical courses in subjects of Dept. Biochemistry → register via moodle
 - + module exams of Dept. Biochemistry → register via LSF
 - + module exams of Dept. Chemistry → oral exams, register at the examination office
Dept. of Chemistry, House F, room 5.020
 - + all other courses/lectures outside Faculty Chemistry: ask in the respective Faculties!

Contacts

Head of Master's Program: Prof. Dr. Roland Beckmann

Program Coordinator: Dr. Johanna Turck

office 0.53, ground floor Genecenter, Mo-Thu 10-12 h

stusekbc@genzentrum.lmu.de

Head of Genecenter: Prof. Dr. Karl-Peter Hopfner

Professors in the Department of Biochemistry and Genecenter:

Profes. Beckmann, Förstemann, Hopfner, Hornung, Jae, Stigler, Stingele

