

Information for Master Curriculum

Undergraduate Research Conference (URCUP): 20.-21. October 2018



<http://urcup.cup.uni-muenchen.de/>

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<http://www.genzentrum.uni-muenchen.de/study-program/index.html>

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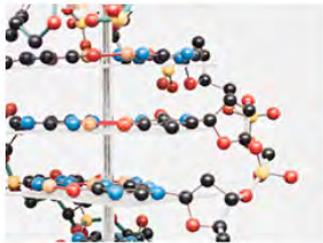
CONTACT

Study Programs

Sign up for the “Master” RSS feed, check its content regularly

We offer a three-year [Bachelor Program](#) in Chemistry/Biochemistry in conjunction with the Department of Chemistry and an international two-year [Master's Program](#) in Biochemistry, which is taught entirely in English.

The Gene Center also has its own [doctoral program](#) and participates in several structured PhD programs, including the Graduate School of Quantitative Biosciences Munich ([QBM](#)), the International Max-Planck Research School for Molecular and Cellular Life Sciences ([IMPRS-LS](#)), and the Research Training Group "Integrated analysis in macromolecular complexes and hybrid methods in genome biology" ([GRK1721](#)).



Bachelor

Three-year Bachelor Program in Chemistry/Biochemistry with the Department of Chemistry



Master

International two-year Master's Program in Biochemistry, taught entirely in English



PhD

Gene Center doctoral program and structured PhD programs (QBM, IMPRS-LS, GRK1721)

The “Master of Biochemistry” has been conceived as a two-year program. That means four (4) semesters.

The winter semester ends March 31st, the summer semester ends Sept. 30th.
We do our very best to make it possible for you to finish on time.

Please make a study plan according to your interests and, if at all possible, stick to it afterwards. Changes applied “along the way” usually lead to overtime.

ATTENTION: Choosing the “Three-Extension-Topic” option has created difficulties in the past to coordinate things appropriately => be careful and pro-active!

If you need five (5) semesters, nothing happens (= it’s OK).

If you have not finished the program by the end of your 5th semester, you will get a notification stating that you have failed for the first time.

If you have not finished the program by the end of your 7th semester, you have failed the program. *We cannot grant any extensions* (except if you provide a medical certificate stating long-term illness).

Schema Master Biochemistry

Mandatory modules 45 ECTS

PF-Biochemistry (30 ECTS) Main topic

P	12 ECTS
OS	3 ECTS
MP	18 SWS (16 + 2) P+OS

S	3 ECTS
Koll	3 ECTS
MP	4 SWS (2 + 2) S+Koll

V1	3 ECTS
V2	3 ECTS
V3	3 ECTS
MP	6 SWS (2 + 2 + 2) V1+V2+V3

PF-Data Analysis (6 ECTS)

V1	1,5 ECTS
Ü1	1,5 ECTS
V2	1,5 ECTS
Ü2	1,5 ECTS
MP	4 SWS (1 + 1 + 1 + 1) V1+Ü1+V2+Ü2

PF- Methods in Life Science (9 ECTS)

P	7,5 ECTS
OS	1,5 ECTS
MP	11 SWS (10 + 1) P+OS

PF = Mandatory module
WPF = Compulsory elective module
P = Practical course
S = Seminar
Koll = Colloquium
V = Lecture
Ü = Exercise
MP = Module exam

Compulsory elective modules 45

WPF-Chemistry (30 ECTS) Main Topic

P	12 ECTS
S	3 ECTS
MP	18 SWS (16 + 2) P+OS

V1	3 ECTS
V2	3 ECTS
V3	3 ECTS
Koll	6 ECTS
MP	9 SWS (2 + 2 + 2 + 3) V1+V2+V3+ Koll

WPF-Life Science (15 ECTS) Extension Topic

P	9 ECTS
MP	10 SWS P

V1	3 ECTS
V2	3 ECTS
MP	4 SWS (2 + 2) V1+V2

WPF-Biology (30 ECTS) Main Topic

P	12 ECTS
OS	3 ECTS
MP	18 SWS (16 + 2) P+OS

S	3 ECTS
Koll	3 ECTS
MP	4 SWS (2 + 2) S+Koll

V1	3 ECTS
V2	3 ECTS
V3	3 ECTS
MP	6 SWS (2 + 2 + 2) V1+V2+V3

Master Thesis (30 ECTS)

MA 30 ECTS

WPF-Chemistry:
Organic Chemistry
Inorganic Chemistry
Physical Chemistry
Theoretical Chemistry

WPF-Biology:
Cell Biology
Microbiology

WPF-Life Science:

- Struktural Biology
- Molecular and Cellular Genetics
- Cell Biology
- Microbiology
- Genetics
- Human Biology
- Molecular Plant Sciences
- Virology
- Evolutionary Biology
- Neurobiology
- Organic Chemistry
- Inorganic Chemistry
- Physical Chemistry
- Theoretical Chemistry
- Biological Chemistry
- Informatics
- Immunology

Further information: Biochemistry => StuSek Biology => Dr. Bögle Chemistry => Dr. Engel Med: Inst. Immunology

Highly recommended: P1 before P5 !!!

Module P1 Advanced research practical course (15 ECTS):

- 16 SWS = 6 – 8 weeks, all-day
- Attend seminar of your research group (2 SWS)
- Grade: practical performance and written report oral presentation in group seminar

Module P 4 Seminar und Colloquium Biochemistry (6 ECTS):

- Seminar Literature und Methods, 2 SWS, summer semester (oral presentation)
- Colloquium = attend 20 talks from the field of Biochemistry
- grade: passed/not passed **big exam, but only 9/39 graded ECTS in BC modules**
Take it serious, pass it in time!

Module P 2 Lectures Biochemistry (9 ECTS):

- 3 lectures (BC5, BC6, BC7)
- One written module exam at the end of each semester; first module exam end of winter semester 15-16

Module P3 Data Analysis (6 ECTS):

- During breaks between semesters
- Written exam, graded

Do this as early as possible!

Module P 5 Methods in Life Science – practical course (9 ECTS):

- 10 SWS – 4 week, all-day
- Attend seminar of your research group (1 SWS)
- Written report

Mandatory modules 45 ECTS	
<p>PF-Biochemie (30 ECTS)</p> <p>P P1 12 ECTS OS 3 ECTS 18 SWS (16 + 2) MP P+OS</p> <p>S P4 3 ECTS Koll 3 ECTS 4 SWS (2 + 2) MP S+Koll</p> <p>V1 P2 3 ECTS V2 3 ECTS V3 3 ECTS 6 SWS (2 + 2 + 2) MP V1+V2+V3</p>	<p>PF-Data Analysis (6 ECTS)</p> <p>V1 P3 1,5 ECTS Ü1 1,5 ECTS V2 1,5 ECTS Ü2 1,5 ECTS 4 SWS (1 + 1 + 1 + 1) MP</p> <p>PF- Methods in Life Science (9 ECTS)</p> <p>P P5 7,5 ECTS OS 1,5 ECTS 11 SWS (10 + 1) MP P+OS</p>



graded module



pass/fail module

Seminar and Colloquium Module (e.g. P4)

Seminars: Students will come together and present topics they prepared

Colloquium: external (usually) speakers (Investigators/Professors) talk about their research

Seminars in **Biochemistry**: block courses offered by individual investigators; similar to cell biology approach, topics will be announced

Seminars in **Biology**:
cell biology: block courses as for Master in Biology, sign up through LSF at the beginning of the semester
microbiology: weekly seminar during semester, contact Prof. Jung

Colloquium in **Biochemistry** and **Biology**: need to attend 20 colloquia (each), get signature
any given talk can only be counted *once*.
(colloquia list can be completed during master thesis)

Colloquium in **Chemistry**: integrated in the lecture module;
at least five colloquia (talks) have to be listed upon exam registration, those can be part of the oral exam (= need to be revised etc.)

Module Exams

General Rule: Only one exam per Module; you can participate as often as necessary until you pass (=we hope 1x), after that you can only participate ONCE to improve your grade; this has to be the next official date.

Practical information for taking the exams

Biochemistry exams: written test, one per semester ; content is always the last version of the lectures;

sign up: online via LSF

Questions: Biochemistry teaching office (stusekbc@genzentrum.lmu.de)

Biology exams: written test, one per semester; content is always the last version of the lectures;

we negotiate and avoid overlap with BC exams whenever possible

sign up: LSF system but check also with course organizers

Chemistry exams: oral exam, 4 exam periods in the year (Jan-Apr-Jul-Oct);

sign up: sign up via LSF *and* register in Chemistry examination office

Other extension topic exams: Contact the organizing institution directly (better sooner rather than later)

IMPORTANT:

We have no control over what other institutions (within the LMU or outside) may post on their web-sites regarding our Master program.

Reliable information on courses: Only on Gene Center Web-page

<http://www.genzentrum.uni-muenchen.de/study-program/index.html>

This is the only source of information for you that we check and maintain!

Link for Moodle platform to obtain course materials etc.:

You need your LMU credentials to login. The links for the courses can be found on the Genecenter Webpages. For example:

<http://www.genzentrum.uni-muenchen.de/study-program/master/program-structure/mandatory-modules/index.html>

Open the P2 Main Topic Biochemistry – Lectures, then follow the schedule link.

Once you have signed up for the course, you will find it directly in your Moodle “dashboard”.

Link for sign-up to courses and exams in the LSF System:

<https://lsf.verwaltung.uni-muenchen.de/qisserver/rds?state=user&type=0>

You need to register for the course first, then you can register for an exam.

Restrictions for **practical work in laboratories**:

- Research internships for main subjects (e.g. P1) cannot be performed in the same lab as Bachelor-thesis
- Research internship for P5-Module cannot be performed in the same lab as main subject (e.g. P1)
- Highly recommended: do P1 **before** P5
- It is not formally prohibited to “append” the P5 course to practical laboratory work for a minor subject (if that does not involve an organized lab-course). In this case, the two projects must address clearly distinct topics and both protocols have to be handed in together (so that it can be verified that the topics were distinct).

Minimal requirements for **master thesis**:

- successful completion of Biochemistry modules P1, **P2**, P3 **and** P5
- other practical laboratory work as much as feasible;
Master thesis is intended as final stage of studies!

But: Colloquia lists can be completed during this time.

Organizational aspects of **master thesis**:

- You need a supervisor; if done externally you need an internal supervisor *in addition*.
- After registration, the time permitted is 26 weeks and *no extensions are possible*.
- If you plan to do P5 immediately before your master thesis (same lab or not), please note that the grade for P5 must be “booked” before you can start your master thesis.
- We provide a form that collects the relevant information and signatures.
Please allow sufficient time (2 weeks or more) for processing!

Registration for the Master Thesis

„Master of Biochemistry“ at the Gene Center, LMU Munich

(Hand in to student office at least two weeks before start, allow more time during lecture free periods!)

Name: _____ Matrikelnummer: _____

Starting Semester: WS / SS 20____

Mandatory and elective Topics:

1. Main topic: Biochemistry

2. Main topic: _____ 1. Extension topic: _____

2. Extension topic: _____

3. Extension topic: _____

Preliminary title of Master thesis:

Host laboratory address: _____ (if required: internal supervisor)

_____ Signature internal supervisor:

Email (external) supervisor: _____

start date : _____ end date: _____

IMPORTANT: The 26 week time CANNOT be extended – please plan accordingly!

Eligibility check (done by the student office):

The student fulfills the formal requirements to start a master thesis: Yes No

Date: _____ Signature student office: _____

Only for an external Master thesis:

The approval by the head of the examination board is required.

The student office will take care of this once you hand in the form and proposal.

We will only notify you in case of problems.

Date: _____ signature for approval: _____

Your part =>

<= Our part

Spending time abroad during your studies

Practical information/counseling

Prof. Klaus Förstemann, A 3.68

Foerstemann@genztenrum.lmu.de

Please make an appointment!

According to my experience least problematic:
External Master Thesis

Possible but more difficulty for coordination:
P1 practical course (laboratory rotation)

Not impossible, but quite complicated due to the flexibility of our program:
Formal course work at foreign institution (e.g. ERASMUS etc.)

Why?

- Get exposed do different (scientific) cultures
- Study your favorite question in the BEST lab that works on it
- Benefit from courses + methods that we do not offer at the Gene Center
- Take charge of your own scientific education!
- Have fun + get to know other scientists



What we can do for you

- We can approve your proposal as a Master thesis or lab rotation
- We can write a general reference letter stating that we will support you in your efforts
- We can provide necessary documents for funding applications and visa
- There is a funding possibility administered by the faculty's dean
- We can ask friends if they would like to have you in their lab

How can you apply for internships? (not only abroad...)

- Write a PERSONAL application letter=mail, include a short CV (max. 1 page each)
- Be sure to answer these questions:
 - Why are you interested in this subject?
 - Why do you want to work on this subject **in this particular group?**
 - Why do you want to go abroad?
 - Who can provide a personal reference?