



INTRODUCTION TO THE MASTER OF SCIENCE PROGRAMS

Molecular and Cellular Biology (MCB)
Plant Sciences (PLS)











CURRICULUM



Types of courses offered at the Faculty of Biology:

- Lecture (written) exam, 3 ECTS credits
- **Seminar** presentation, 3 ECTS credits
- Practical course lab report, 3-6 ECTS credits
- Research course lab report and presentation, 12 ECTS

These courses need to be combined in modules.

Master MCB – 1st Semester



1st Semester

| Mandator | y course: | Mandatory course: | | |
|------------|------------|-----------------------|------|--|
| Lab Metho | ds in MCB/ | Computational Biology | | |
| PLS/MHB | (6 ECTS) | (6 E(| CTS) | |
| S | Р | L | Р | |
| | | | | |
| Present | ation & | Written exam & | | |
| lab report | (graded) | lab report (graded) | | |

| | n 1 of 7 CCTS) | Methods of Option 1 of 7 (6 ECTS) | | cou | sciplinary rses S each) |
|--------------------------------------|-------------------|---|---|---|-------------------------------|
| L | S | S | Р | L/S/P/V | L/S/P/V |
| L | L | | | | |
| Written exam & presentation (graded) | | | | Written exam, lab repor or presentation (pass) | |

Option 1 of 7:

- Genetics
- Human biology
- Microbiology
- Cell biology
- Biology:
 - Plant Sciences
 - EES
 - Neurosciences





Master MCB – 1st Semester



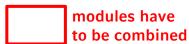
Ist Semester

| | ds in MCB/ | Mandatory Computation (6 EC | nal Biology | | n 1 of 7 :CTS) | Method Option (6 EC | 1 of 7 | cour | sciplinary rses S each) |
|------------|------------|-----------------------------------|-------------|--------------|-------------------|---------------------------|----------|-------------|-------------------------------|
| S | Р | L | Р | L | S | S | Р | L/S/P/V | L/S/P/V |
| | | | | L | L | | | | |
| Present | ation & | Written | exam & | Written | exam & | Present | ation & | Nritten exa | m, lab repor |
| lab report | (graded) | lab report | (graded) | presentation | on (graded) | lab report | (graded) | or presenta | ation (pass) |

Both modules have to be combined

Option 1 of 7:

- Genetics
- Human biology
- Microbiology
- Cell biology
- Biology:
 - Plant Sciences
 - EES
 - Neurosciences



EES: Evolution, Ecology and Systematics

L: lecture; P: practical course; S: seminar; GS: group seminar V: vocational course; D: defense; C: colloquium



Master PLS – 1st Semester



1st Semester

| Mandatory Lab Method | s in MCB/ | Mandatory course: Computational Biology | |
|-------------------------|-----------|---|---|
| PLS/MHB | (6 ECTS) | (6 ECTS) | |
| S P | | L | Р |
| | | | |
| Present lab report | | Written of lab report | |

| | n 1 of 7 CTS) | Methods of Option 1 of 7 (6 ECTS) | | 2 interdisciplinar courses (3 ECTS each) | |
|--------------------------------------|------------------|---|---|--|---------|
| L | S | S | Р | L/S/P/V | L/S/P/V |
| L | L | | | | |
| Written exam & presentation (graded) | | Presentation & lab report (graded) | | Written exam, lab repor or presentation (pass) | |

Both modules have to be combined

Option 1 of 7:

- Plant molecular biology
- Biotic interactions of plants
- Systematics
- Plant cell biology
- Biology:
 - MCB
 - EES
 - Neuroscience



modules have to be combined



Winter semester 2024/25



| October 7 – 11 | Introduction week | | |
|---------------------------|---------------------------------|---------------------------------|--|
| October 15 – 18 | Computational Biology Part 1 | | |
| October 22 – 25 | | | |
| October 29 – November 1 | Lab methods Group A | Comp. Biology Part 2 Group B | |
| November 5 – 8 | · | | |
| November 12 – 15 | | | |
| November 19 – 22 | Comp. Biology Part 2 Group A | Lab methods Group B | |
| November 26 – November 29 | | | |
| December 3 – 20 | Elective courses | | |
| December 23 – January 6 | Christmas holidays | | |
| January 7 – February 7 | Elective courses | | |
| February 10 – 21 | Exam period | | |
| February 25 – March 31 | Elective courses | | |
| April 22 | Start classes summer semester | | |

From Oct 15 until Nov 29:

- Mondays: Lectures
- Tuesdays Fridays (10-17h): Computational Biology and Lab Methods



Winter semester 2024/25



| Monday | Tuesday | Wednesday | Thursday | Friday |
|------------------|---------|------------------------|----------------------|--------|
| | | 08:00 - 10:00 | Lecture slot | |
| LECTURE - DAY | | 10:00 - 17:00 Slot f | or practical courses | |
| | | 17:00 - Open en | d seminar slot | |
| | | | | |



Master MCB – 2nd Semester



2nd Semester

| Adva Option (6 E0 | 1 of 7 | Advanced methods of Option 1 of 7 (6 ECTS) | |
|-------------------------|--------|--|---|
| L | S | S | Р |
| L L | | | |
| Written presentatio | | Presentation report (gi | |

Research course
Option 1 of 7
(12 ECTS)

Research course

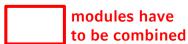
GS

Vritten exam, lab report or presentation (pass)

Both modules have to be combined

Option 1 of 7:

- Genetics
- Human biology
- Microbiology
- Cell biology
- Biology:
 - Plant Sciences
 - EES
 - Neurosciences



EES: Evolution, **E**cology and Systematics



Master MCB – 3rd Semester



3rd Semester

| Special methods of Option 1 of 7 (6 ECTS) | | Special research module in Option 1 of 7 (15 ECTS) | | | |
|---|------------------------------------|--|---------------------------------|----|--|
| S | Р | L | Research course | GS | |
| | Presentation & lab report (graded) | | Lab report & oral exam (graded) | | |

3 interdisciplinary courses (3 ECTS each)

L/S/P/V L/S/P/V L/S/P/V

Written exam, lab report or presentation (pass)

Option 1 of 7:

- Genetics
- Human biology
- Microbiology
- Cell biology
- Biology:
 - Plant Sciences
 - EES
 - Neurosciences

modules have to be combined

Both modules have to be combined

EES: Evolution, **E**cology and Systematics

L: lecture; P: practical course; S: seminar; GS: group seminar V: vocational course; D: defense; C: colloquium



Master MCB – 4th Semester



| Final master's module (30 ECTS) | | |
|---------------------------------|-----|-----------|
| Master's thesis (26 ECTS) | С | GS |
| graded | Pre | sentation |



Curriculum



Parts of the curriculum after the first semester:

Research courses

- Duration: 8 weeks full-time lab work + 1 week preparation of lab report (12 ECTS)
- You are allowed to do 1 external research course out of 2 research courses (can be the first or second – order irrelevant)
- External means outside of the faculty (= supervisor is not included in "list of internal supervisors")
- An external course abroad is allowed as well
- Colloquia (attending 20 scientific presentations, 1.5 ECTS)
- Master's thesis
- → More information on http://www.pls.bio.lmu.de/downloads and on http://www.pls.bio.lmu.de/downloads



Curriculum



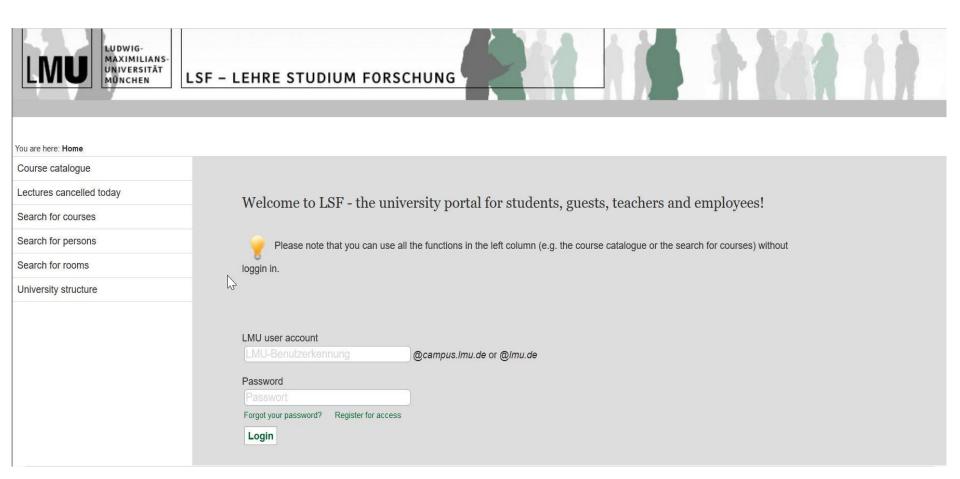
Course catalogue/ Vorlesungsverzeichnis

www.lsf.lmu.de



Course catalogue

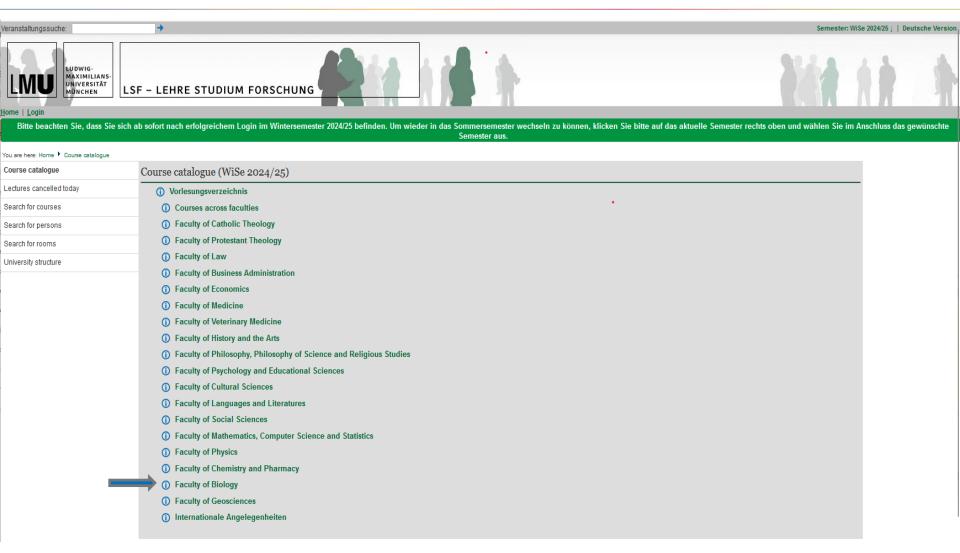






Course catalogue







Course catalogue



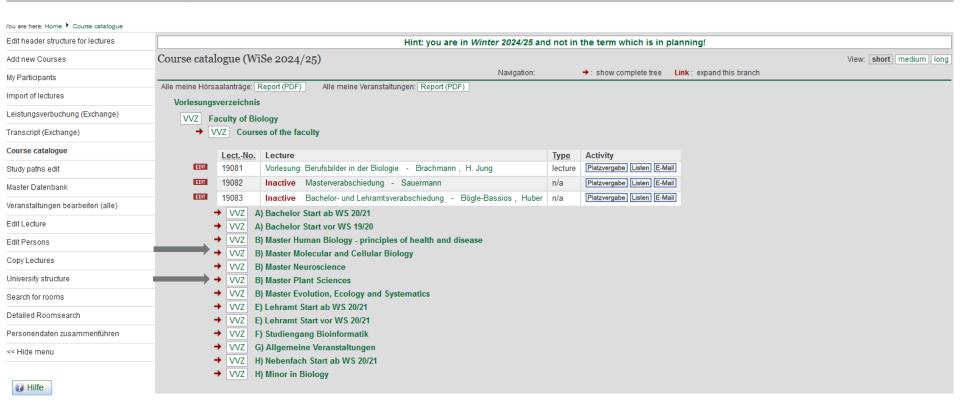


LSF - LEHRE STUDIUM FORSCHUNG











Course catalogue





LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

LSF - LEHRE STUDIUM FORSCHUNG





acting as: Department | for Fakultät für Biologie You are here: Home Home Course catalogue Edit header structure for lectures Hint: you are in Winter 2024/25 and not in the term which is in planning! Course catalogue (WiSe 2024/25) Add new Courses View: short Navigation: →: show complete tree Link: expand this branch My Participants Alle meine Hörsaalanträge: Report (PDF) Alle meine Veranstaltungen: Report (PDF) Import of lectures Vorlesungsverzeichnis Leistungsverbuchung (Exchange) VVZ Faculty of Biology → VVZ Courses of the faculty Transcript (Exchange) → VVZ B) Master Molecular and Cellular Biology Course catalogue → VVZ 1. Semester Study paths edit Activity Lect.-No. Lecture Type Master Datenbank Platzvergabe Listen E-Mail Master Welcome Event - Meilinger n/a 19232 Veranstaltungen bearbeiten (alle) EDIT 19233 Inactive Master's Workshop: Intercultural Communication Skills, Oct 7 or Oct 9 workshop Platzvergabe Listen E-Mail Introduction to Master MCB, PLS, MHB - H. Jung, Nägele, Leonhardt, K. Jung, Leister, Parniske, Osman, Kerschensteiner introductory course Platzvergabe Listen E-Mail Edit Lecture 19234 P1 Lab methods in molecular and cellular biology Edit Persons P2 Computational biology in molecular and cellular biology Copy Lectures → VVZ WP1-3 Genetics University structure WP4-6 Human biology WP7-9 Microbiology Search for rooms WP10-12 Cell biology Detailed Roomsearch WP13-15 Plant sciences Personendaten zusammenführen → VVZ WP17-20 Neurobiology → VVZ WP21-23 Evolution, Ecology and Systematics << Hide menu → VVZ WP24-31 Elective courses → Practical courses INAKTIV W Hilfe → Seminars INAKTIV



Course catalogue



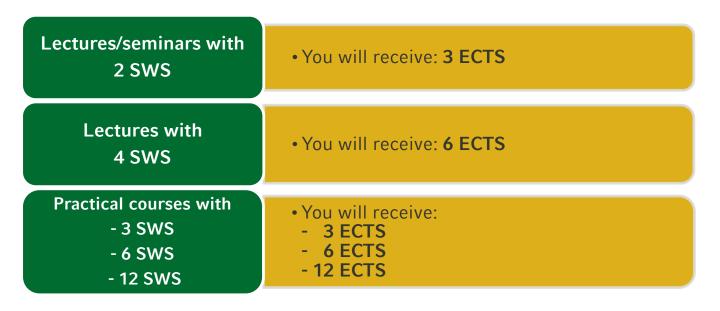




Course catalogue



- A course is mentioned in two or more topics →The course can be used in different modules, but only once.
- For example:
 The lecture "Virology" is part of genetics, microbiology, and cell biology.
- No mention of ECTS credits in the short comments:



Excursions are regarded as practical courses.



Signing up for seminars and practical courses



Course catalogue/ Vorlesungsverzeichnis

www.lsf.lmu.de

You can sign up for courses offered in the winter semester 2024/2025 until Sunday, October 13, 2024 (23:59h CEST).

Seminars/Practical courses

• you need to sign up via the LSF website

Lectures

• no registration required

Research courses

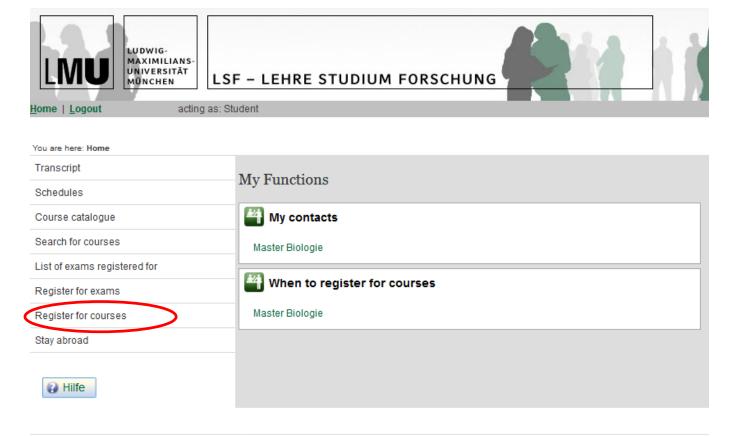
- contact group leaders directly
- even if a research course is mentioned in LSF



Signing up for seminars and practical courses



- Please visit the LSF system at: <u>www.lsf.lmu.de</u>.
- 2. Login with your LMU user data.
- 3. Select **English version** (on the top right of the page).
- 4. Select **Register for courses** (Lehrveranstaltungen belegen/abmelden).

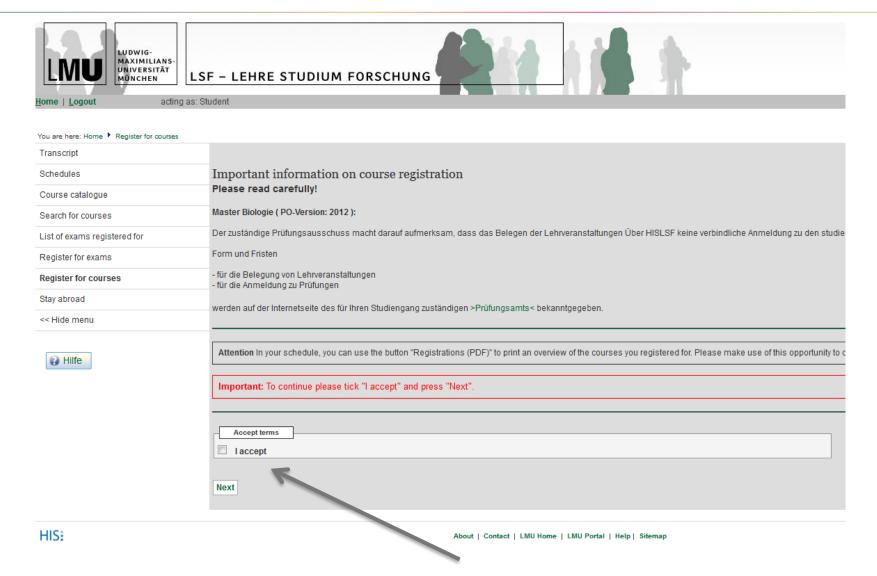






Signing up for seminars and practical courses







Signing up for seminars and practical courses



| | | Register for courses |
|------------------------------------|-----------|---|
| 7001 seminars Choice: 1 from 50 | | |
| ▼ Register □ | Priority: | Seminar: Mechanisms of plant gene regulation |
| V Register 🗆 | Priority: | Seminar: From centrioles to microcephaly |
| ▼ Register □ | Priority: | Seminar: Stem cells |
| ▼ Register □ | Priority: | Seminar: Microbial Physiology and Synthetic Biology |
| ♥ Register □ | Priority: | Seminar: Design of experiments in plant science |
| ○ Register □ | Priority: | Seminar: Covid-19: Wissenschaft & Philosophie |
| ○ Register □ | Priority: | Seminar - Methods in electron microscopy and their application |
| ○ Register □ | Priority: | Seminar: Molecular genetics and signal transduction of pathogenic protozoa |
| ◯ Register 🗆 | Priority: | Seminar: DNA-Repair |
| ◯ Register 🗆 | Priority: | Seminar - Hot topics in (cryo) electron microscopy |
| ○ Register □ | Priority: | Seminar: Structural and functional analysis of prokaryotic transmembrane receptors and transporte |
| ○ Register □ | Priority: | Seminar for bachelor, master, and doctoral students and for Zulassungskandidaten (AG Phylogeny a |
| ♥ Register □ | Priority: | Seminar for bachelor, master and doctoral students (AG Phylogenetic phycology) |



Signing up for seminars and practical courses



General pointers:

- You do not have to apply via the LSF for the mandatory courses "Lab Methods" and "Computational Biology" (as a first semester MCB or PLS master's student, you are already registered for these courses).
- Please only apply for practical courses and seminars that will take place after November 29, 2024
- → you will attend the mandatory courses "Lab Methods" and "Computational Biology" until then.

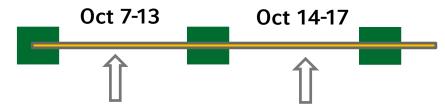


Distribution of spots for practical courses (1/2)



Practical course application (by students)

Distribution of spots (by study coordinators)



Introduction
1st year students

Study coordinators distribute spots for practical courses based on the following criteria:

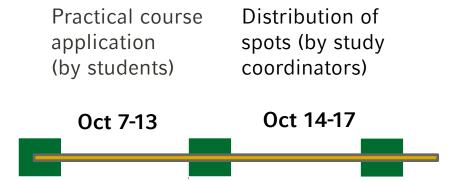
- Priority (chosen by the student),
- Seniority (which semester),
- How many spots have already been assigned to a student, students with a lower number of assigned courses will be prioritized.

If less spots are offered than there are applicants, a draw will take place.



Distribution of spots for practical courses (2/2)





Meeting for final distribution of spots

Friday, October 18, 2024 @8:30h by Zoom meeting

During this Zoom meeting:

- A list with the preliminary participants of each course will be presented.
- Students need to confirm the offered spot for a course.
- If there are any open spots left, they will be distributed.

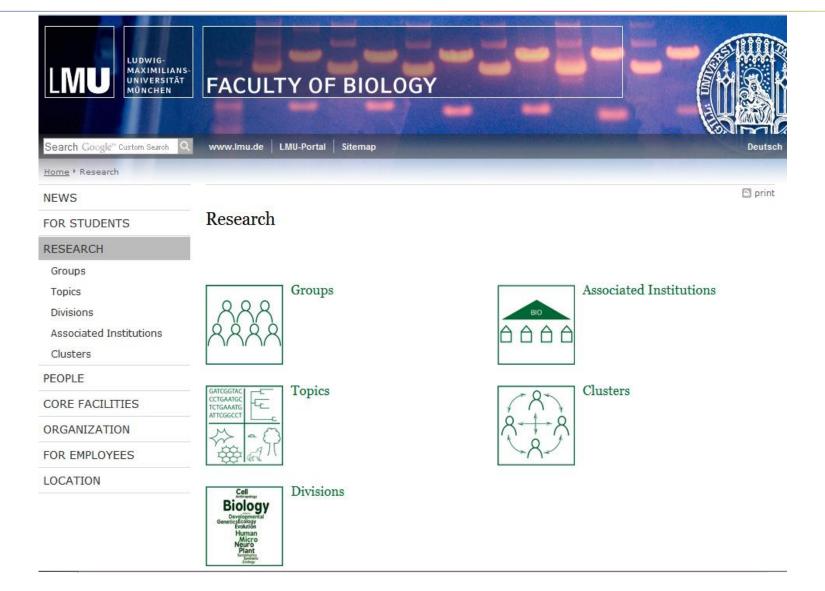
All students that applied for a practical course **need to attend (or ask someone to represent them)!**

You will receive a link to the Zoom meeting by e-mail.



Research areas







Research areas



FOR STUDENTS

Topics

RESEARCH

Groups

Topics

Divisions

Associated Institutions

Clusters

PEOPLE

CORE FACILITIES

ORGANIZATION

FOR EMPLOYEES

LOCATION



Biochemistry



Cell Biology





Developmental Biology



Ecology



Epigenetics



Evolutionary Biology



Genetics



Gene Regulation



Human Biology



Microbiology



Neurobiology



Plant Sciences



Protein Biochemistry



Synthetic Biology



Systematics



Systems Biology



Zoology



Upcoming semester dates



Winter semester 2024/25: October 1, 2024 – March 31, 2025

Christmas break: December 20, 2024 – January 6, 2025

Summer semester 2025: April 1 – September 30, 2025

| Semester | Lecture start date | Lecture end date |
|---------------------------|--------------------|------------------|
| Winter semester 2024/2025 | October 14, 2024 | February 7, 2025 |
| Summer semester 2025 | April 23, 2025 | July 25, 2025 |
| Winter semester 2025/2026 | October 13, 2025 | February 6, 2026 |
| Summer semester 2026 | April 13, 2026 | July 17, 2026 |
| Winter semester 2026/2027 | October 12, 2026 | February 5, 2027 |



Miscellaneous



- Registration of residence at the "Kreisverwaltungsreferat" (KVR) or "Bürgerbüro"
- Health issues
 - Missing of lectures, seminars or practical courses
 - Missing of exams
- Exams
 - How many chances
 - Improving exam grades
- Maximum study duration
- Acknowledgement of courses previously taken (you have to apply until the end of your 1st semester with the examination office)
- Email-Account: **activate** campus email-address and **use** @campus.lmu.de address for **all LMU-communication**



Miscellaneous



 Erasmus internship or study abroad www.lmu.de/international/auslandsstudium

 interdisciplinary Moodle course "impACTup!: Innovation and Entrepreneurship for Better Futures"!



Other services for students



"WeCare@LMU"

The "WeCare@LMU" initiative supports students and employees to cope with crisis situations as well as psychological and personal challenges.

https://www.lmu.de/en/about-lmu/working-at-lmu/additional-services/diversity/wecare-lmu-2024/



Other services for students



Studying with disabilities

LMU Office for Disability Services

wide range of services for students with disabilities, chronic and mental illnesses e.g. disadvantage compensation, extension of time for exams

IMPORTANT: the services are strictly confidential – no documentation on any official notification or certificates!

Introduction event 2024: October 11, 2024, 10:00 h

Contact:

www.lmu.de/barrierefrei

behindertenberatung@Imu.de



Other services for students



Inclusion tutors

Specifically trained students provide support for students

<u>www.lmu.de/inklusionstutoren</u> <u>inklusionstutoren@verwaltung.uni-</u> <u>muenchen.de</u>

Barrier-free Peer-Groups

Discussion panels / personal exchange and networking

Meetings (online and in person)

Support in case of specific and individual problems

> IBS

Interest group of disabled and non-disabled students (involvement in university politics):

www.lmu.de/IBS



Other services for students



Studying with a child



Student support services "STUDYING WITH A CHILD"





Service-Hotline: 089 / 2180-3124

E-Mail: studierenmitkind@lmu.de

Please visit our website:

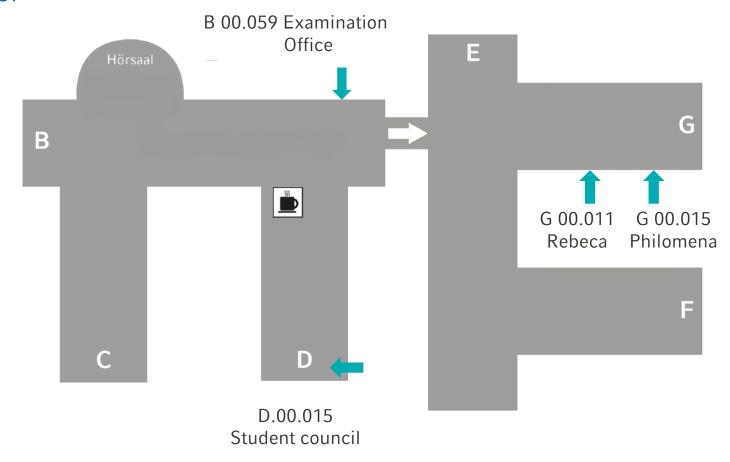
https://www.lmu.de/en/workspace-forstudents/student-support-services/studying-witha-child/index.html



How to find us?



Biocenter





University sports



