



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



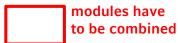
1st Semester

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

		n 1 of 7 CTS)	Methods of Option 1 of 7 (6 ECTS)		2 interdisciplinary courses (3 ECTS each)
ı	L	S	S	Р	L/S/P/V L/S/P/V
ı	L	L			
	Written exam & presentation (graded)		Present lab report		Written exam, lab report or presentation (pass)

Option 1 of 7:

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





Master MCB – 1st Semester



Ist Semester

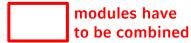
Mandatory course: Lab Methods in MCB/ PLS/MHB (6 ECTS)		Mandatory Computation (6 EC	nal Biology
S	Р	L P	
Present lab report		Written e	

	n 1 of 7 CTS)	Methods of Option 1 of 7 (6 ECTS)		coui	sciplinary rses S each)
L	S	S P		L/S/P/V	L/S/P/V
L	L				
Written exam & presentation (graded)		Presenta lab report			m, lab repor: 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	/ course:	Mandatory course:	
Lab Methods in MCB/		Computational Biology	
PLS/MHB (6 ECTS)		(6 EC	TS)
S	Р	L P	
Presentation & lab report (graded)		Written of lab report	

	n 1 of 7 CTS)	Methods of Option 1 of 7 (6 ECTS)		cour	sciplinary ses S each)
L	S	S	Р	L/S/P/V	L/S/P/V
L	L				
	Written exam & presentation (graded)		Presentation & lab report (graded)		m, lab report ation (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 2023/24



October 9 – 13 Introduction week		on week
October 17 – 20	Computational Biology Part 1	
October 24 – 27		
October 31 – November 3	Lab methods Group A	Comp. Biology Part 2 Group B
November 7 – 10		
November 14 – 17		
November 21 – 24	Comp. Biology Part 2 Group A	Lab methods Group B
November 28 – December 1		
December 4 – 22	Elective courses	
December 23 – January 7	Christmas holidays	
January 8 – February 9	Elective courses	
February 12 – 23	Exam period	
February 12 – March 31	Elective courses	
April 15 (leap year)	Start classes summer semester	

From Oct 16 until Dec 1:

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



Winter semester 2023/24



Monda	y Tuesday	Wednesday	Thursday	Friday
		08:00 - 10:0	00 Lecture slot	
LECTURE DAY	-	10:00 - 17:00 Slot	for practical courses	
		17:00 - Open e	nd seminar slot	



Master MCB – 2nd Semester



2nd Semester

Advanced Option 1 of 7 (6 ECTS)		Advanced methods of Option 1 of 7 (6 ECTS)	
L	S	S P	
L	L		
Written exam & presentation (graded)		Presentation report (gr	

Research course
Option 1 of 7
(12 ECTS)

Research course

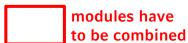
GS

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 m Option (6 EC	1 of 7	Special research module in Option 1 of 7 (15 ECTS)			
S	Р	L	L Research course GS		GS
Presentati report (g		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



4th Semester

Final master's module (30 ECTS)			
Master's thesis (26 ECTS)	D	С	GS
graded		Prese	entation



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")
- External in other countries 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





LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN





You are here: Home	
Course catalogue	
Lectures cancelled today	Welcome to LSF - the university portal for students, guests, teachers and employees!
Search for courses	, , , , , , , , , , , , , , , , , , , ,
Search for persons	Please note that you can use all the functions in the left column (e.g. the course catalogue or the search for courses)
Search for rooms	without loggin in.
University structure	
	LMU user account LMU-Benutzerkennung @campus.lmu.de or @lmu.de Password Passwort
	Forgot your password? Register for access



Course catalogue





Bitte beachten Sie, dass Sie sich ab sofort nach erfolgreichem Login im Wintersemester 2023/24 befinden. Um wieder in das Sommersemester			
You are here: Home F Course catalogue			
Course catalogue	Course catalogue (WiSe 2023/24)		
Lectures cancelled today	(i) Vorlesungsverzeichnis		
Search for courses	① Courses across faculties		
Search for persons	(i) Faculty of Catholic Theology		
Search for rooms	Faculty of Protestant Theology		
University structure	① Faculty of Law		
	① Faculty of Business Administration		
	① Faculty of Economics		
	① Faculty of Medicine		
	① Faculty of Veterinary Medicine		
	① Faculty of History and the Arts		
	Faculty of Philosophy, Philosophy of Science and Religious Studies		
	Faculty of Psychology and Educational Sciences		
	① Faculty of Cultural Sciences		
	Faculty of Languages and Literatures		
	① Faculty of Social Sciences		
	Faculty of Mathematics, Computer Science and Statistics		
	① Faculty of Physics		
	① Faculty of Chemistry and Pharmacy		
	① Faculty of Biology		
	① Faculty of Geosciences		
	① Internationale Angelegenheiten		



Course catalogue





LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN

LSF - LEHRE STUDIUM FORSCHUNG





Home | Login

Bitte beachten Sie, dass Sie sich ab sofort nach erfolgreichem Login im Wintersemester 2023/24 befinden. Um wieder in das Sommersemester wechseln zu können,

You are here: Home Course catalogue				
Course catalogue	Course catalogue (WiSe 2023/24)			
Lectures cancelled today	① Vorlesungsverzeichnis			
Search for courses	① Faculty of Biology			
Search for persons	① Courses of the faculty			
Search for rooms University structure	LectNo. Lecture 19055 Vorlesung: Berufsbilder für BiologInnen - Brachmann , H. Jung lecture 1 A) Bachelor Start ab WS 20/21 1 A) Bachelor Start vor WS 19/20 1 B) Master Human Biology - principles of health and disease 1 B) Master Molecular and Cellular Biology 1 B) Master Neuroscience 1 B) Master Plant Sciences 1 B) Master Evolution, Ecology and Systematics 2 E) Lehramt Start ab WS 20/21 3 E) Lehramt Start vor WS 20/21 4 F) Studiengang Bioinformatik 5 G) Allgemeine Veranstaltungen 6 H) Nebenfach Start ab WS 20/21			



Course catalogue





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Home | Login

Bitte beachten Sie, dass Sie sich ab sofort nach erfolgreichem Login im Wintersemester 2023/24 befinden. Um wieder in das Sommersemester wechseln zu könne

Course catalogue	Course catalogue (WiSe 2023/24)			
Lectures cancelled today	(i) Vorlesungsverzeichnis			
Search for courses	(i) Faculty of Biology			
Search for persons	(i) Courses of the faculty			
Search for rooms	B) Master Molecular and Cellular Biology			
University structure	① 1. Semester			
Oniversity structure				
	Lect-No. Lecture			
	19200 Master Welcome Event - Meilinger			
	19202 Introduction to Master MCB, PLS, MHB - H. Jung, Leonhardt, K. Jung, Leister, Parniske, Sta			
	① P1 Lab methods in molecular and cellular biology			
	P2 Computational biology in molecular and cellular biology			
	① WP1-3 Genetics			
	① WP4-6 Human biology			
	① WP7-9 Microbiology			
	① WP10-12 Cell biology			
	① WP13-15 Plant sciences			
	① WP17-20 Neurobiology			
	WP21-23 Evolution, Ecology and Systematics			
	(i) WP24-31 Elective courses			
	Practical courses			



Course catalogue





LSF - LEHRE STUDIUM FORSCHUNG



Home | Login

Bitte beachten Sie, dass Sie sich ab sofort nach erfolgreichem Login im Wintersemester 2023/24 befinden. Um wieder in das Sommersemester wechseln zu können, klicken Sie

You are here: Home
Course catalogue

Course catalogue
Lectures cancelled today
Search for courses
Search for persons
Search for rooms
University structure

Course catalogue (WiSe 2023/24)

- (i) Vorlesungsverzeichnis
- (i) Faculty of Biology
 - (i) Courses of the faculty
 - (i) B) Master Molecular and Cellular Biology
 - (i) 1. Semester
 - (i) WP1-3 Genetics

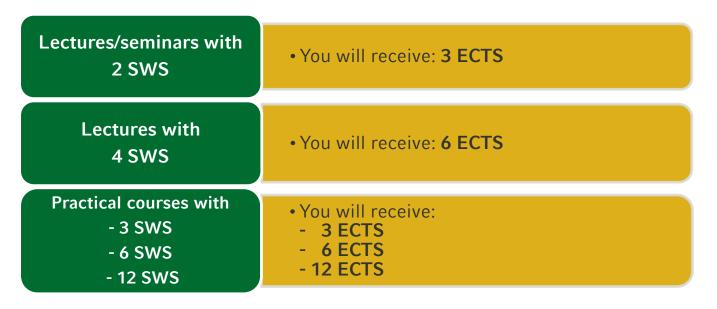
Lect No.	Lecture
19023	Lecture: Molecular virology (part I: basic virology), Baldauf, Baiker, Brack-Werner
19134	Seminar: Food & Genes, Rybak
19150	Lecture: Human genomics - Enard , Hellmann
19156	Seminar: DNA-Repair - Friedl
19213	Seminar: Computational genetics - N. N., Schneeberger
19214	eLecture: Methods in Molecular Biology Part 1 - Meilinger , Hann
19215	HiFi-based assemblies - N. N. , Schneeberger
19216	Lecture: Genomes and Gene regulation, Becker
19217	Practical course Biological engineering
19218	Practical course and Seminar: How to design experiments and write a project proposal - Parniske, Hann
19219	Lecture: Biological engineering
19220	Seminar: Genetics and Society (The human genome and its implications for mankind) - seminar longitudinal to the - Pamiske , Hann , Becker



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 2023/2024 until Sunday, October 15, 2023 (23:59h CEST).

Seminars/Practical courses

• you need to sign up via the LSF website

Lectures

• no registration required

Research courses

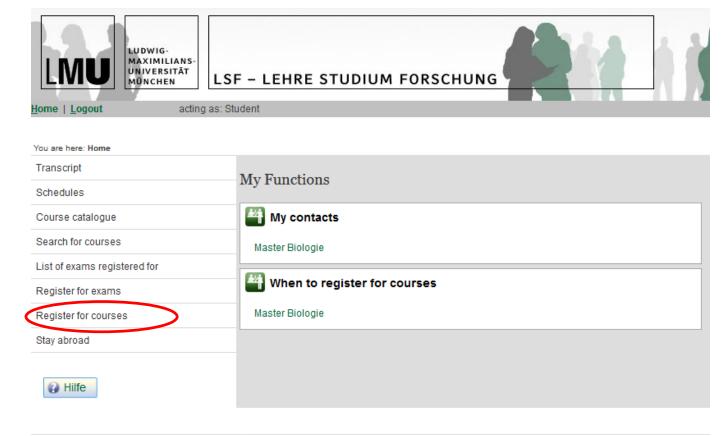
- contact group leaders directly
- even if a research course is mentioned in LSF



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).

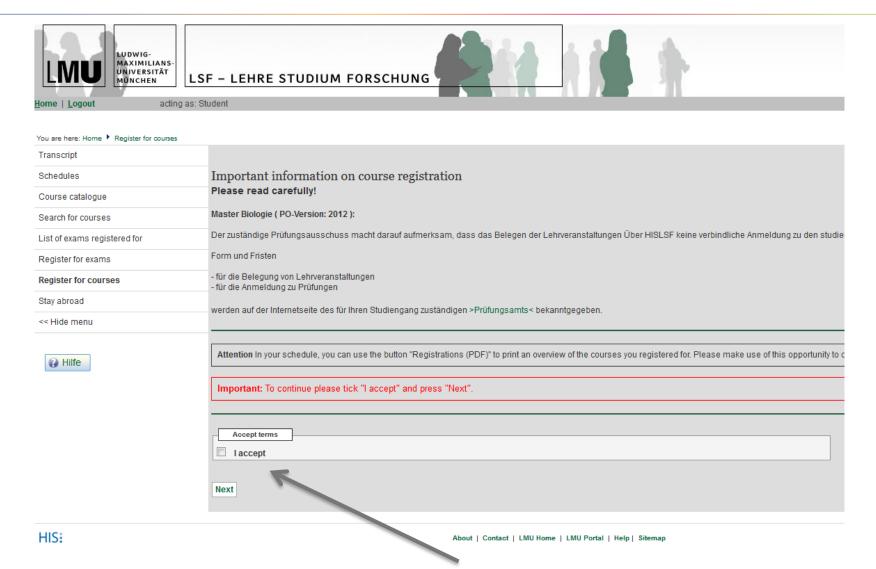






Signing up for seminars and practical courses







Signing up for seminars and practical courses



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



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 **December 1, 2023**
- → you will attend the mandatory courses "Lab Methods" and "Computational Biology" until then.

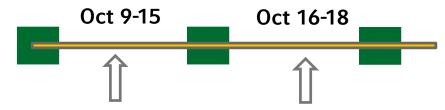


Distribution of spots for practical courses (1/2)



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:

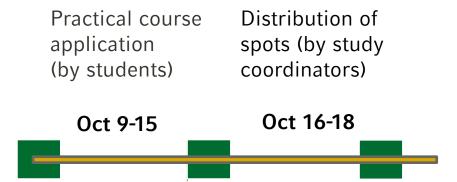
- Priority (chosen by the student),
- Seniority (which semester),
- How many spots have already been assigned to a student, students with a lower number of assigned courses will be prioritized.

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 20, 2023 @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.

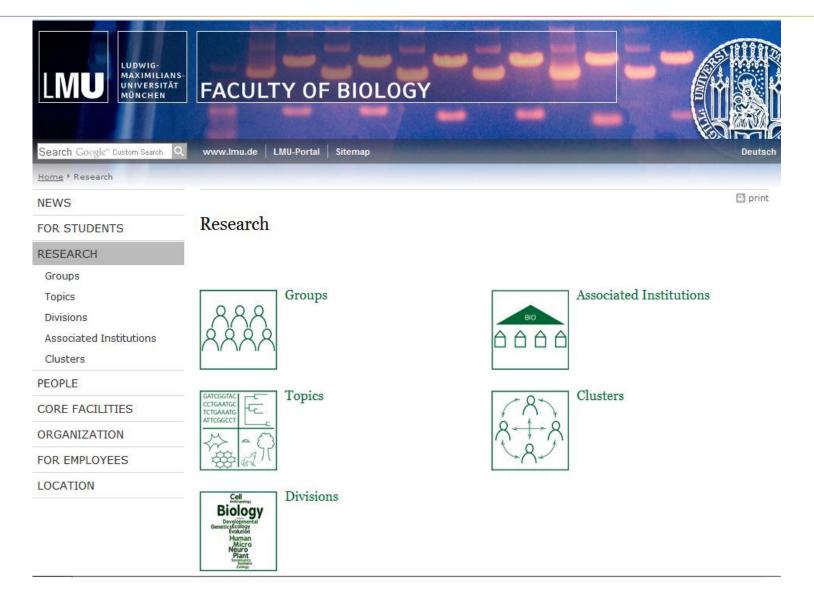
All students that applied for a practical course **need to attend (or ask someone to represent them)!**

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 2023/24: October 1, 2023 – March 31, 2024

Christmas break: December 23, 2023 – January 7, 2024

Summer semester 2024: April 1 – September 30, 2024

Semester	Lecture start date	Lecture end date
Winter semester 2023/2024	October 16, 2023	February 9, 2024
Summer semester 2024	April 25, 2024	July 19, 2024
Winter semester 2024/2025	October 14, 2024	February 7, 2025
Summer semester 2025	April 22, 2025	July 25, 2025
Winter semester 2025/26	October 13, 2025	February 6, 2026



Miscellaneous



Other important things:

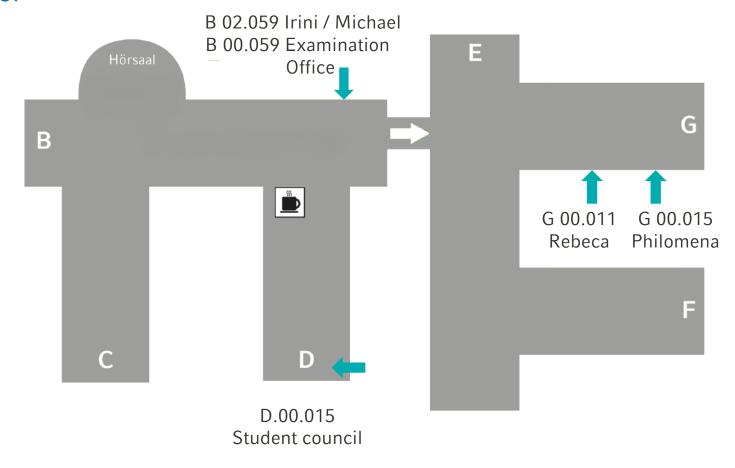
- Registration of residence at the "Kreisverwaltungsreferat" (KVR) or "Bürgerbüro"
- Health issues
 - Missing of lectures, seminars or practical courses
 - Missing of exams
- Exams
 - How many chances
 - Improving exam grades
- Maximum study duration
- Acknowledgement of courses previously taken (you have to apply in first semester)
- Email
 - Account (activate @campus.lmu.de address)
 - Contact (use @campus.lmu.de address for all LMU-communication)
 - WiFi on campus (www.lrz.de)
- Erasmus internship or study abroad (information session)



How to find us?



Biocenter





University sports



